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ABSTRACT

A survey was administered to 194 colleges and universities offering instructional technology graduate degree programs to obtain information for a current reference source on their admission and program requirements, degree emphases, enrollment and faculty data, program features, and curricula, for the year 1978-79. All of the institutions responded. In addition to providing a description of existing programs, trends of previous studies--1954-55, 1968-69, 1977-78--were tabulated and compared with current data. It was found that the number of programs has increased from 50 in 1955 to 193 in 1980, and a majority of the programs require the Graduate Record Exam and an undergraduate/graduate grade point average for admissions; 788 full-time and 469 part-time faculty were identified. Recommendations conclude the report. Provided are 23 tables, a 58-item bibliography, and 8 appendices: (1) the questionnaire; (2) graduate programs in instructional technology, identifying contact person, address, and degree type; (3) number of instructional technology programs identified in each state; (4) states comprising each geographic region; (5) school, college or division name; (6) department names; (7) titles of state certification for instructional technology programs; and (8) specialty areas for instructional technology majors. (RBF)

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AN ANALYSIS OF INSTRUCTIONAL TECHNOLOGY GRADUATE DEGREE PROGRAMS IN UNITED STATES COLLEGES AND UNIVERSITIES

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AUTHOR'S BACKGROUND

Ronald E. Short is director, Sales and Technical Training Division, Farmland Industries, Inc., Kansas City, Missouri. He received his doctorate from Northern Illinois University. This publication was a segment of his dissertation study.

ABSTRACT

The purpose of the study was to describe and analyze the admissions requirements, program requirements, degree emphases, enrollment data, faculty data, program features, and curricula of instructional technology graduate degree programs in United States colleges and universities.

Data for the study were gathered by a questionnaire distributed to 194 identified institutions. A 100 percent response was obtained.

An analysis of the data provided the following conclusions. The number of programs increased from 50 in 1955 to 193 in 1980. The degrees offered and the programs have continued to be located within the school/college of education. Departmental names have fluctuated and the number of descriptors used has increased.

A majority of the programs required the Graduate Record Exam and an undergraduate/graduate grade point average for admissions. The majority of all three degree levels required a minimum number of credit hours, a maximum time allocation for degree completion, and a comprehensive examination.

The major emphases of the master's programs were materials production and utilization/application. The six-year degree emphasized management/administration. The doctorate emphases were research, instructional development, theory, evaluation, and instructional systems design.

The masters had the greatest number of student enrollments. In all three degree levels, student majors were greater than the number

of student minors and the number of part-time students was greater than the number of full-time students. The master's level had the greatest number of foreign and out-of-state students and total graduates.

There were 788 full-time and 469 part-time faculty members identified. The largest percent of the full-time faculty held the professor's rank and a doctorate degree. The majority of programs offered state certification and financial assistance.

All 193 programs offered at least one course in the management/ administration, production, and utilization of media. The mean number of courses offered was 17.3 courses per program.

Recommendations included that a thorough survey of all instructional technology graduate degree programs be conducted annually. Common descriptors need to be utilized for the profession's identity. Administrators and faculty of the programs need to assume an effective leadership role in the direction of the profession.

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Opinions have been offered suggesting that the status of a profession hinges in part on surveys which are sporadically conducted. At the present time, the only publications which list the institutions offering graduate instructional technology degrees are either outdated, deficient, or both.

Two reference guides exist which were considered complete at their times of publication, but are of little value today, since they do not reflect the rapid rise in the number and sophistication of graduate programs in instructional technology. These publications are: Directory of Graduate Programs for the Professional Education of Audio-Visual Supervisors, Directors, and Building Coordinators (1955),[1] and Instructional Technology Graduate Degree Programs in the U.S. Colleges and Universities, 1969-1971.[2]

The 1955 study filled a void for persons and institutions seeking information about graduate education programs in the audiovisual field at that time. In addition to an actual comprehensive listing of the colleges and universities offering such graduate degrees, the study considered the following factors: (1) characteristics of a professional education program, (2) career opportunities in audio-visual education, (3) role of certification, (4) DAVI certification recommendations, (5)

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[1] L. C. Larson and Edwin G. Cohen, Directory of Graduate Programs for the Professional Education of Audio-Visual Supervisors, Directors, and Building Coordinators (Washington: Department of Audio Visual Instruction, November, 1955).

[2] L. C. Larson and Gary Peterson, Instructional Technology Graduate Degree Programs In U.S. Colleges and Universities, 1969-1971 (Washington: Association for Educational Communications and Technology, 1971).

determination of the status of graduate audio-visual education programs, (6) analysis of graduate education programs, and (7) future developments.[3]

However, this publication soon became outdated as the field of instructional technology rapidly grew and expanded. No attempt was made to thoroughly update this document.

A more recent reference work, Graduate Degree Programs in Instructional Technology, 1978-79, was produced by the Association for Educational Communications and Technology.[4] Although it is the most recent compilation of data on graduate degree programs in the field, this publication is deficient in two areas: (1) it reported only a portion of the total number of institutions granting such degrees, and (2) it incompletely treated the available descriptive data.

The author considered three other recent publications while researching this project. However, all three demonstrate limitations by listing only institutions offering master's degrees in instructional technology. Furthermore, these reference guides identify foreign institutions granting master's degrees in the field. Produced by the International Division of the Association for Educational Communications and

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[3]Larson and Cohen, op. cit., pp. 4-10.

[4]John W. Ellison and Clara Di Felice, Graduate Degree Programs in Instructional Technology, 1978-79 (Washington: Association for Educational Communications and Technology, 1978).

Technology, the information for these directories was compiled by researcher/editor Jenny K. Johnson. These directories were published in 1977,[5] 1978,[6] and 1979.[7]

The intention of the author was to produce a reference source with the most current listing of all U.S. institutions offering master's, six-year, and doctoral degrees in instructional technology. Through research and compilation of comparative data, this publication will be one of the most comprehensive available to date.

Today, the field of instructional technology is accepted as a progressive approach to education in meeting the needs of the technological society. Considering the impact of the new techniques available to educators, an up-to-date publication which identifies and analyzes all graduate degree programs offered in instructional technology will assist in the establishment of professional standards.

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[5]Jenny K. Johnson, Report of Masters Programs in Educational Communications and Technology, 1977 (Washington: International Division, Association for Educational Communications and Technology, 1978).

[6]Jenny K. Johnson, Report of Masters Programs in Educational Communications and Technology, 1978 (Washington: International Division, Association for Educational Communications and Technology, 1979).

[7]Jenny K. Johnson, Report of Masters Programs in Educational Communications and Technology, 1979 (Washington: International Division, Association for Educational Communications and Technology, 1980).

Eight research questions were formulated for use in developing the data collection instrument and analyzing the results of the responses. The first research question considered the general information and data of all 193 identified programs. Specifically, the question was: What characteristics existed in the number, program continuations, geographic location, organizational structure, department name, and types of degrees of instructional technology graduate degree programs?

The second research question dealt with the subject of admissions and asked: What were the admissions requirements for the master's, six-year, and doctoral instructional technology programs, and was transfer credit accepted?

The third research question was concerned with a comparison of program requirements. Aspects of this question were: What characteristics existed in instructional technology graduate degree programs regarding the hours of credit for the degree, time allocations for degree completion, thesis/dissertation/scholarly paper, comprehensive examinations, residency requirements, internship, and costs per credit hour?

The fourth research question considered degree emphases. The facets considered by this question were: What characteristics existed in the emphases of the three levels of instructional technology graduate degree programs?

The fifth research question was formulated to provide an analysis of enrollment data in the instructional technology graduate degree programs. The enrollment data question was: What were the enrollment statistics of students in instructional technology graduate degree programs as majors/minors, full-/part-time, foreign, out-of-state, and the number of graduates?

A sixth research question was concerned with data on faculty members. The question formulated was: What were the characteristics of instructional technology graduate programs' faculty regarding full-/part-time employment, rank, and the highest degrees held?

The seventh research question considered the program features. This question asked: What characteristics existed for instructional technology graduate degree programs regarding state certification, specialty areas/majors, financial assistance, facilities, and equipment?

The eighth research question was directed toward curriculum, the question being: What were the number of courses offered by the instructional technology graduate degree programs?

A timely comprehensive reference source, listing and analyzing graduate degree programs in instructional technology, is this author's contribution to the instructional technology profession. Many college guides are confusing or vague in their listings of courses in instructional technology. The institutions offering course work within the field quite often title their departments with a wide range of names as broad as "Educational Media" or "Audiovisual Education." The multiplicity of titles for individual courses can be even more disconcerting to a prospective student.

An all-inclusive, well-organized reference source will partially help alleviate this problem.

Specifically, this study will serve: (1) departments of instructional technology in determination of entrance requirements, advice to candidates, and revisions of course offerings, (2) academic advisement, (3) institutions in long-range planning procedures, (4)

professional organizations and state education departments in the formulation of standards for certification of instructional technology personnel, (5) graduate candidates in their decisions regarding specific programs, and (6) prospective employers in the establishment of qualifications and selection of job applicants.

The definitions of terms used are intended to be functional or "operational" to this study rather than having any absolute meaning.

Admissions Requirements: those experiences and courses that are preliminary to formal admission to the "degree-seeking" status as a graduate level student. These may include examinations, previous formal instructional experiences, and other specific requirements that must be completed prior to admission into the graduate program.

Masters Degree: the first graduate degree received; usually encompassing one year of graduate study.

Six-Year Graduate Degree: an intermediate degree requiring two years of graduate study.

Doctoral Degree: an advanced graduate degree usually entailing three years of graduate study, passing qualifying exams, executing research and subsequently documentating research in the form of a dissertation or thesis.

Faculty, Full-Time: teachers of the rank of instructor, lecturer, assistant professor, associate professor, or professor who devote 100 percent of their time to activities within a given program.

Faculty, Part-Time: teachers of the rank of instructor, lecturer, assistant professor, associate professor, or professor who may or may not be hired full-time by the school but do not spend 100 percent of their time within a given program.

Instructional Media: the major components of this term have been defined by the United States Commission on Instructional Technology when it defined "instructional technology":

> In its more familiar sense, it means the media born of the communications revolution which can be used for instructional purposes alongside the teacher, textbook, and blackboard ... the overhead projectors, computers, and other items of "hardware" and "software" ...
>
> The second and less frequent definition of instructional technology goes beyond any particular medium or device ... It is a systematic way of designing, carrying out, and evaluating the total process of learning and teaching in terms of specific objectives, based on research in human learning and communication, and employing a combination of human and nonhuman resources to bring about more effective instruction.[8]

Program: any college or university curricular unit which can grant or participate in the granting of a graduate degree. This author determined that a graduate degree program in instructional technology must fulfill specific criteria. The institution must have provided at least one course in the management/administration of media, one course in the production of media, and one course in the utilization of media. In addition, six additional hours in media courses needed to be available. Therefore, an instructional technology degree program consisted of a minimum of 15 total hours of media courses offered by the department or other departments within the institution. The degree granted must be a master's level or higher. The degree need not be called instructional technology but 15 hours of the degree must be taken in the specified media courses.

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[8]Commission on Instructional Technology, To Improve Learning; a Report to the President and Congress of the United States (Washington: U.S. Government Printing Office, 1970), p. 19.

Students, Full-Time: graduate students in a media program who are designated by individual schools as being full-time; usually these students carry a course load of at least nine semester hours per semester.

Students, Part-Time: graduate students not carrying nine semester hours.

ANALYSIS OF THE DATA

The purpose of the study was to assess program features of instructional technology graduate degree programs in United States colleges and universities and to address the development of a comparative of programs identified. Data analyzed were admissions requirements, program requirements, degree emphases, enrollment data, faculty data, program features, and curricula for the years 1978-79.

Data analyses were accomplished by developing eight research questions and formulating the questions in a data collection instrument entitled, "Instructional Technology Graduate Degree Programs in U.S. Colleges and Universities: 1980." See Appendix A for specifics of the questionnaire.

To increase the clarity of reporting, data were presented grouped by areas as expressed on the questionnaire. The eight research questions followed the same format and were addressed accordingly. In addition, trends and comparatives of the four studies (1954-55, 1968-69, 1977-78, and 1978-79) were analyzed in the same manner. To further clarify the data, tables were used.

POPULATION

Appendix B lists the institution's name, department name, address, and chairperson of the 194 institutions offering instructional technology graduate degree programs in 1980. In order to qualify as a bona fide instructional technology graduate degree program, the institution must have provided at least one course in the management/administration of media, one course in the production of media, and one course in the utilization of media. In addition, six additional hours in media courses needed to be available. Therefore, an instructional technology degree program consisted of a minimum of 15 total hours of media courses offered by the department or other departments within the institution. The degree granted must be a master's level or higher. The degree need not be called instructional technology but 15 hours of the degree must be taken in the specified media courses. A 100 percent response was obtained from the population identified.

QUESTION NUMBER ONE--GENERAL DATA

Question number one was: What were the number, program continuations, geographic location, organizational structure, department name, and types of degrees of instructional technology graduate degree programs?

Number of Instructional Technology Graduate Degree Programs

The first and second subquestions posed for question number one were: What is the number of instructional technology graduate degree programs in U.S. colleges and universities? And, have institutions continued to offer an instructional technology graduate degree program once established?

The following trend statements were proposed regarding the number of instructional technology graduate degree programs: First, there had been a trend to increase the number of instructional technology graduate degree programs since 1955; and secondly, there had been a trend for institutions to continue to offer an instructional technology graduate degree program once established.

Fifty institutions were identified as having a graduate program for the professional education of audio-visual supervisors, directors, and building coordinators in the 1955 directory of Larson and Cohen. The Larson and Cohen study predicted that more than 100 institutions would develop instructional technology graduate degree programs. They

also identified 30 institutions that offered a variety of audio-visual graduate courses with emphasis in utilization, preparation, and administration.

The Peterson and Larson study collected data on 67 institutions with graduate degree programs in instructional technology. They reported that there were no more than 70-75 graduate degree programs in instructional technology in 1969-71.

The Ellison and Di Felice study collected data on 61 institutions with instructional technology graduate degree programs in 1977-78. They identified 30 additional institutions with programs, but data were not provided on the programs.

This study identified 194 institutions that offered instructional technology graduate degree programs in 1978-79. One hundred ninety-three master's programs were identified due to the joint program provided by Glassboro State College and Trenton State College of New Jersey. In addition, 67 of the 194 institutions offered a six-year degree in instructional technology; and 59 of the 194 institutions offered a doctorate degree in instructional technology.

Table 1 depicts trends in the number of instructional technology graduate degree programs from 1954 to 1979. Trends reflected data from the directories and studies of 1955, 1969-71, 1977-78, and 1978-79. Forty-seven (94 percent) of the 50 programs identified in 1955 offered graduate programs in 1980. In 1980, the State Teachers College of Brockport, New York; the University of Houston of Houston, Texas; and the University of Utah of Salt Lake City, Utah, no longer offered programs.

Of the 67 programs identified in the 1969 study, 62 (94 percent) offered instructional technology graduate degree programs in 1980. The University of Illinois, Urbana, Illinois; Hofstra University, Hempstead, New York; University of North Dakota, Grand Forks, North Dakota; University of Utah, Salt Lake City, Utah; and the University of Puerto Rico did not offer instructional technology graduate degree programs in 1980. The University of Puerto Rico was included in the 1969-71 study. It neither offered a graduate program nor can be considered one of the 50 sovereign states of the United States. The 1969-71 study did not identify the University of North Dakota as offering a bona fide program, although the data indicated that graduate courses were offered.

Of the 91 programs in the 1978 study, 83 (91 percent) offered instructional technology graduate degree programs in 1980. The University of Arkansas, Pine Bluff, Arkansas; Grand Valley State, Grand Valley, Michigan; Harding College, Searcy, Arkansas; Harris Stowe College, St. Louis, Missouri; Hofstra University, Hempstead, New York; University of Illinois, Urbana, Illinois; University of North Dakota, Grand Forks, North Dakota; and the University of Utah, Salt Lake City, Utah, did not offer programs in 1980. Complete data were supplied by only 61 of the 91 programs identified in the 1977-78 study.

There has been a definite trend in the increased number of institutions offering instructional technology graduate degree programs. This increase was reflected in the reporting of 50 institutions in 1955; 67 institutions in 1969; 91 institutions in 1976-77; and 194 institutions

in 1978-79. In addition, over 90 percent of the institutions identified in the 1954-55 study, the 1968-69 study, and the 1977-78 study continued to offer programs in 1980.

Table 1

Instructional Technology Graduate Degree Programs (1955-1980)

Institutions and Programs	Academic Year			
	1954-55	1968-69	1977-78	1978-79
No. of Institutions	50	67	91	194
No. of Graduate Degree Programs	50	66	91	193
% of Instituions Offering Programs in 1980	94%	94%	91%	100%

Geographic Location of Instructional Technology Programs

The third subquestion for question number one was: What is the geographic location of instructional technology graduate degree programs? The trend statement proposed by the researcher stated that the location of programs remained static even as new programs were established. The 1978-79 study indicated that 65 percent (125/193) of all instructional technology graduate degree programs were located east of the Mississippi River. The other 35 percent (68/193) were located west of the Mississippi River. This was compared to 54 percent east and 46 west for 1954-55; 59 percent east and 41 percent west 1968-69; and 64 percent east and 36 percent west for 1977-78. This data indicated an increase in each study for the percent of institutions with programs located east of the Mississippi River.

In addition, Degree Program Locations by Geographic Region, Table 2, indicated there was a trend for the location of programs in the middle states/New England region to remain stable at approximately 23 percent. A gradual decrease was shown in the percent of programs located in the west/northwest region from 18 percent in 1954-55 to 12.4 percent in 1978-79. The north central and southern region tended to fluctuate in the percent of institutions identified in each study. The north central region in each study demonstrated the greatest number of programs. The southern region demonstrated the only overall growth. The six states of Alaska, Delaware, Idaho, Maine, New Hampshire, and Vermont offered no instructional technology graduate degree programs in 1980. New York reported the most graduate programs with 11, followed by Illinois with 10, and California and Pennsylvania with 9 each. See Appendix C for the number of instructional technology graduate degree programs identified in each state.

Table 2

Degree Program Locations by Geographic Region*

Region	Academic Year			
	1954-55 N = 50	1968-69 N = 66	1977-78 N = 91	1978-79 N = 193
Middle States/ New England	22.0%	22.7%	23.1%	23.3%
North Central	34.0	42.4	48.3	36.3
Southern	26.0	18.2	13.2	28.0
West/Northwest	18.0	16.7	15.4	12.4
Total	100.0%	100.0%	100.0%	100.0%

*See Appendix D for listing of states comprising each region.

School, College, or Division Name

The fourth subquestion for question number one was: Which organizational structure of the institution houses the instructional technology graduate degree program?

The trend statement developed was that the instructional technology graduate degree programs continued to be a part of the educational organizational structure of colleges and universities. This trend was confirmed since the instructional technology graduate degree programs were predominantly located in the school/college of education for all four studies (84.0 percent in 1954-55; 90.9 percent in 1968-69; 77.1 percent in 1977-78, and 81.3 percent in 1978-79).

Table 3

Organizational Structure (School, College, or Division) Within Which Instructional Technology Program is Located*

Name	Academic Year			
	1954-55 N = 50	1968-69 N = 66	1977-78 N = 61	1978-79 N = 193
Communications	0.0%	1.5%	1.6%	2.1%
Education	84.0	90.9	77.1	81.3
Graduate School	8.0	1.5	3.3	0.5
Library Science	2.0	0.0	0.0	2.1
Other	6.0	6.1	18.0	14.0
Total	100.0%	100.0%	100.0%	100.0%

*See Appendix E for listing of school, college, or division name for programs.

The location of the programs within the structure of the graduate school of the institution had declined from 8.0 percent in 1955 to only 0.5 percent in 1980. However, more than a 200 percent increase was identified (from 6.0 percent in 1954-55 and 6.1 percent in 1968-69, to 18.0 percent in 1977-78 and 14.0 percent in 1978-79) for programs located in a variety of other organizational structures in the universities and colleges. It is this author's opinion that the haphazard placement of the programs explained the further dilution of the instructional technology profession. Programs needed a commonality in institutional placement to assure consistency, standarization, and ease in recognition.

Department Name

The fifth subquestion for question number one was: What was the name of the program or the department?

The trend statement developed was that there had been a trend for department names to change and proliferate. The analysis of program or department names verified the difficulty in identifying a bona fide instructional technology graduate degree program. Larson and Peterson identified a variety of 19 different titles in their 1969 directory. The 1978 directory revealed approximately 50 department names in use. This study identified 62 department names describing instructional technology graduate degree programs. Categorization of the 62 department names was accomplished by analyzing the frequency of the use of words employed in departmental names. Table 4 presents the nine words used most frequently in the instructional technology department names. The most drastic drop was in the use of the word "audiovisual." The use of

"audiovisual" declined from 38.4 percent in 1954-55 to only 1.1 percent in 1978-79. In addition, the use of "education/educational" in the titles had also declined. However, it should be noted that a number of programs did not report departmental titles in the 1955 directory. Courses were offered by the audiovisual area but not identified by a specific departmental name. The majority of all programs in 1954-55 were located in the school/college of education and were generally called the audio-visual education department. The use of the words communications, library, and science had increased. This probably reflected the fact that library science departments and communications departments included "audio-visual" courses in their curriculum and relabeled the department names as library media or media communications. The use of the words curriculum, instruction, and technology in department names have fluctuated with time. The use of the word media in the department names has demonstrated the greatest increase. No usage was reported in 1954-55, but it was the most utilized word in 1978-79 at 20.1 percent.

The greatest decrease was in the use of the term audiovisual and the greatest increase was in the usage of the term media in the departmental names. The changes, transitions, and growths in the instructional technology profession in the last three decades are reflected in the department name.

The most common department names, identified in the 1980 study, were instructional media or educational media. This inconsistency in the program/department name verified the difficulty of identifying programs, program content, or degree emphasis.

Table 4

Frequency of Use for Words Employed in Departmental Names*

Word	Academic Year			
	1954-55 N = 39	1968-69 N = 146	1977-78 N = 154	1978-79 N = 454
Audiovisual	38.4%	6.2%	0.6%	1.1%
Communications	2.6	3.4	3.9	5.5
Curriculum	2.6	5.5	5.8	3.5
Education/Educational	38.4	21.2	17.5	17.4
Instruction/Instructional	5.2	17.1	20.1	13.2
Library/Librarianship	0.0	3.4	5.2	7.7
Media	0.0	15.7	17.5	20.1
Science	0.0	2.1	3.5	4.4
Technology	0.0	5.5	14.9	10.4
Other	12.8	19.9	11.0	16.7
Total	100.0%	100.0%	100.0%	100.0%

*See Appendix F for a complete listing of department names.

Types of Instructional Technology Degrees

The sixth subquestion for question number one was: What types of degrees do the instructional technology programs offer?

A graduate degree program in instructional technology must fulfill specific criteria for inclusion in this study. The institution must provide at least one course in the management/administration of media, one course in the production of media, and one course in the utilization of media. In addition, six additional hours in media courses should be available. Therefore, an instructional technology degree program consists of a minimum of 15 total hours of media courses offered

by the department or other departments in the institution. The degree granted must be a master's level or higher. The degree need not be called instructional technology but 15 hours of the degree must be taken in the specified media courses. All 194 institutions and 193 programs met this criteria. These guidelines correlated with conditions established for the first study in 1954-55.

The respondents to the 1980 questionnaire were asked to identify the types of degrees offered by their program. Table 5 presents this data. Of the 193 master's programs, 97 (50.3 percent) offered a masters in education (MEd). A masters of art (MA) was offered in 37.3 percent of the programs, and a masters of science (MS) was offered in 30.1 percent. This reporting was based on the criteria that defined an instructional technology graduate degree program.

Sixty-seven institutions reported six-year degree programs. The education specialist degree (EDS) was frequently offered (70.2 percent), followed by the certificate of advanced graduate study (CAGS), and certificate of advanced study (CAS), with 13.4 and 11.9 percent respectively.

Fifty-nine institutions reported doctorate degree programs. The doctorate of education (EdD) and doctorate of philosophy (PhD) were offered at approximately the same rate, 76.3 and 67.8 percent respectively.

In reviewing the general data of the instructional technology degree programs from 1955 to 1980, the following summary was offered. Firstly, there has been a major trend to increase the number of programs (50-193). Secondly, there has been an identifiable trend for programs

to be established and continued (90 percent). Thirdly, there has been a trend for the geographic locations of programs to correlate with the sunbelt states. Fourthly, the trend for the programs to be located within the college/school of education has continued. Fifthly, there has been a trend for the department names to change and increase in the number of descriptors. And finally, there has been a trend for the types of degrees offered to be in education.

Table 5

Types of Instructional Technology Degrees Offered (1978-79)

Degree	Percent of Total Institutions Offering Degrees*
Masters N = 193	
MEd	50.3%
MA	37.3
MS	30.1
MAT	1.6
Other	7.8
Six-Year N = 67	
EDS	70.2%
CAGS	13.4
CAS	11.9
Other	6.0
Doctorate N = 59	
EdD	76.3%
PhD	67.8
Other	3.4

*Totals may exceed 100% due to multiple offerings.

QUESTION NUMBER TWO--ADMISSIONS

Question number two was: What were the admissions requirements for the master's, six-year, and doctoral instructional technology programs, and was transfer credit accepted?

Graduate Record Exam (GRE)

The first subquestion for question number two was: Did a majority of the programs in the 1980 study require the Graduate Record Exam (GRE) as a requirement for admissions? The results of the 1980 questionnaire provided a response to this question. A compilation of the admission data is presented in Table 6. The statistics demonstrated that the majority of the programs at each level required the GRE for admissions. The higher the level of degree, the greater the percent of institutions that required the GRE. Fifty-one (86.4 percent) of the 59 doctorate programs required the GRE; 43 (64.2 percent) of the 67 six-year degree programs required the GRE; and 122 (63.2 percent) of the 193 master's programs required the GRE for admissions. However, the percentage of institutions requiring a minimum score was markedly reduced. Specific scores were required by 50.8 percent of the master's level programs; 69.8 percent of the six-year programs; and 72.6 percent of the doctorate programs. A number of institutions indicated that the examination was only used as a guideline for admissions and no specific score was required.

The GRE score required for the advanced level degrees was higher. The GRE score was based on both the verbal and quantitative areas. The mean GRE score computed for the various levels was 877.9 for the masters, 921.7 for the six-year and 991.2 for the doctorate.

Scores required for the master's level ranged from 400 to 1,200 with 18 institutions requiring a score of 1,000; 11 institutions required a score of 900; and 15 institutions required a score of 800. Scores required for the six-year degree ranged from 500 to 1,200 with 1,000 being the most common score which was required by 11 institutions. Specific score requirements for the doctorate degree ranged from 500 to 1,200, with a score of 1,000 required by 19 of the 37 institutions.

Miller Analogies Test (MAT)

The second subquestion for question number two was: Did a majority of the programs in the 1980 study require the Miller Analogies Test (MAT) for admissions? Table 6 reports that a majority of the programs did not require the MAT for admissions for the three degree levels considered. The MAT test demonstrated an increase as an admissions requirement as the degree level increased. Twenty-eight and five-tenths percent of the master's level programs required the MAT for admission, while 31.3 percent and 45.8 percent of the six-year and doctorate levels, respectively, utilized it as a component of their admissions requirement.

In addition, specific score requirements on the MAT increased for the higher level degrees. Percentile scores required on the MAT ranged from 21 to 60 percentile for the masters, 30 to 60 percentile for the six-year, and 43 to 65 percentile for the doctorate.

The 1978-79 study indicated that 52 institutions did not require either the GRE or MAT for admission to their master's program, as compared to 18 institutions that did not require either examination

for the six-year program, and 4 institutions that did not require either the GRE or MAT for entrance to the doctorate program.

Special Examination

The third subquestion for question number two was: Did a majority of the programs in the 1980 study require a special examination (institution's own) for admissions? Table 6 depicts that less than 10 percent of any of the institutions identified for the three graduate degree levels required a special examination.

The National Teachers' Examination (NTE) was listed most frequently as a special examination requirement. Other special examinations identified were English competency/usage, writing proficiency, and examinations for non-English speaking students.

Teaching Experience

The fourth subquestion for question number two was: Did a majority of the programs in the 1980 study require teaching experience for admissions? Table 6 identifies that a majority of the institutions did not require teaching experience for admissions to any level of the instructional technology graduate degree programs. However, the doctoral degrees did require a higher percent (37.3 percent) of the students to possess teaching experience than the six-year (29.9 percent) or master's level (21.8 percent). The mean years of teaching experience required increased from a mean of 1.7 years at the master's level to 2.2 years at the six-year, and 2.3 years for the doctorate level. Only one institution required more than three years of teaching experience for admissions.

With less emphasis placed on the pure educational degree, apparently fewer programs required teaching experience as an admissions requirement.

Grade Point Average (GPA)

The fifth subquestion for question number two was: Did a majority of the programs in the 1980 study require either an undergraduate or graduate grade point average for admissions? Table 6, Admissions Requirements by Degree Level (1978-79), demonstrates that a majority of all three degree levels required an undergraduate or graduate grade point average (GPA) for admissions. A 3.0 on a four-point scale was the most common GPA reported for all three degree levels. The mean undergraduate GPA for the masters was 2.8. A mean undergraduate GPA of 2.9, and a mean graduate GPA of 3.1 were required for the six-year degree. A mean undergraduate GPA of 2.9 and graduate GPA of 3.2 were required for the doctorate level.

Transfer Credit

The sixth subquestion for question number two was: Did a majority of the programs in the 1980 study accept transfer credit? Transfer credit was accepted by 64.4 percent of the doctorate programs, 73.1 percent of the six-year level programs, and 83.9 percent of the master's programs. This indicated that a majority of the programs accepted transfer credit. Furthermore, as the level of the degree increased, the percent of programs accepting transfer credit decreased. The number of semester equivalent hours of transfer credit increased 300 percent from the masters to the doctorate level. The mean number of transfer hours accepted for the masters was 8.0; for the six-year

level, 10.7 hours; and for the doctorate level, 24.5. The most common number of transfer hours accepted for the master's and six-year levels was six, with 73 master's programs accepting six transfer hours, and 24 of the 67 six-year programs accepting six transfer hours. The most common number of transfer hours accepted for the doctorate level was 30 semester hours, with 12 of the 59 institutions reporting.

In the category of "other requirements" for admissions, the most common responses included letters of recommendations, writing proficiency exercises, and interviews by the faculty of the instructional technology department. Several institutions also reported that a weighted scale regarding the admissions requirements was used. No comparative analyses were developed since none of the previous studies addressed admissions requirements.

The data for question number two was summarized by recognizing that: (1) a majority of the programs for all three levels required the Graduate Record Exam (GRE), (2) a majority of the programs for all three levels required an undergraduate or graduate grade point average (GPA), (3) specific standards for transfer credit were deliniated by the majority of the institutions, and (4) the majority of the programs at all three levels did not require the Miller Analogies Test (MAT), a special examination, or teaching experience as admissions requirements to instructional technology graduate degree programs. In addition, the admissions requirements were progressively more difficult for each level of the degree.

Table 6

Admissions Requirements by Degree Level (1978-79)

Degree Level	Admissions Requirement		
	Graduate Record Exam (GRE)		
	% Institutions Requiring	% Institutions Requiring Specific Score	Mean Score Required (Where Applicable)
Masters N = 193	63.2	50.8	877.9
Six-Year N = 67	64.2	69.8	921.7
Doctorate N = 59	86.4	72.6	991.2
	Miller Analogies Test (MAT)		
	% Institutions Requiring	% Institutions Requiring Specific Score	Mean Score Required (Where Applicable)
Masters N = 193	28.5	50.9	41.9
Six-Year N = 67	31.3	61.9	47.8
Doctorate N = 59	45.8	66.7	53.5
	Special Examination (Institution's Own)		
	% Institutions Requiring	% Institutions Requiring Specific Score	Mean Score Required (Where Applicable)
Masters N = 193	6.7	N/A	N/A
Six-Year N = 67	7.5	N/A	N/A
Doctorate N = 59	10.2	N/A	N/A

(continued next page)

Table 6 (Continued)

Degree Level	Admissions Requirement	
	Teaching Experience	
	% Institutions Requiring	Mean Years Required (Where Applicable)
Masters N = 193	21.8	1.7
Six-Year N = 67	29.9	2.2
Doctorate N = 59	10.2	2.3
	Undergraduate Grade Point Average (GPA)	
	% Institutions Requiring	Mean GPA Required (Where Applicable)*
Masters N = 193	81.9	2.8
Six-Year N = 67	68.7	2.9
Doctorate N = 59	71.2	2.9
	Graduate Grade Point Average (GPA)	
	% Institutions Requiring	Mean GPA Required (Where Applicable)*
Masters N = 193	N/A	N/A
Six-Year N = 67	80.6	3.1
Doctorate N = 59	79.7	3.2

(continued next page)

Table 6 (Continued)

Degree Level	Admissions Requirement	
	Transfer Credit Accepted	
	% Institutions Requiring	Mean Hours Accepted (Where Applicable)**
Masters N = 193	83.9	8.0
Six-Year N = 67	73.1	10.7
Doctorate N = 59	64.4	24.5

*Four-point equivalent

**Semester hours or equivalent

QUESTION NUMBER THREE--PROGRAM REQUIREMENTS

Question number three was: What characteristics existed in instructional technology graduate degree programs regarding the hours of credit for the degree, time allocations for degree completion, thesis/dissertation/scholarly paper, comprehensive examinations, residency requirements, internship, and costs per credit hour?

Credit Hours for Degree

The first subquestion for question number three was: Did programs identified in the 1980 study require a minimum number of credit hours for a degree? Table 7 presents a compilation of the data gathered in the 1980 questionnaire. All 193 programs at the master's level required a minimum number of credit hours for a degree. The mean

semester hours equivalent required for the master's degree was 32.7. A minimum number of credit hours was required by 97.0 percent (65 of 67 institutions) of the six-year level programs, and by 98.3 percent (58 of 59 institutions) of the doctorate programs. The mean semester hour equivalents for the six-year and doctorate degree were 64.0 and 89.6, respectively. Those institutions that did not require a minimum number of credit hours reported that program plans were individualized according to students' backgrounds.

Table 7

Instructional Technology Program Requirements by Degree Level (1978-79)

Degree Level	Program Requirement and Percent of Programs Requiring					
	Minimum Total Hours	Maximum Time Allocated for Completing Degree	Thesis/ Dissertation/Scholarly Paper	Comprehensive Exam	Residency	Internship
Masters N = 193	100.0%	92.8%	45.1%	65.3%	32.6%	19.7%
Six-Year N = 67	97.0	83.6	62.7	58.2	40.3	8.3
Doctorate N = 59	98.3	98.3	93.2	81.4	86.4	23.7

Time Allocation for Degree

The second subquestion for question number three was: Did programs have a maximum time allocation for degree completion after being admitted? The least stringent of the three programs was the

six-year level with 83.6 percent of the programs requiring a time allocation. This was followed by 92.8 percent of the master's programs and 98.3 percent of the doctorate programs maintaining maximum time allocations for degree completion after admission. The mean time allotments increased with the higher degree levels. The mean time allowed for the master's degree was 70.5 months; the six-year level was 73.9 months; and the doctorate level was 81.7 months. The time allocations varied from one year to 10 years for the masters with 72 institutions reporting 6 years. The six-year program also reported 6 years as the most common time allocation, with 26 institutions reporting. In addition, the time allotment range for the six-year level was from 3 to 10 years. The doctorate level provided a range of 4 to 12 years for degree completion, with 7 years being the most common response.

Thesis/Dissertation/Scholarly Paper

The third subquestion for question number three was: Did a majority of the programs in the 1980 study require a thesis/dissertation/scholarly paper as a program requirement? The data in Table 7 reports that a thesis/dissertation/scholarly paper was required by a majority of the six-year and doctorate programs, but not the master's programs. The "project" concept was a common response for master's and six-year programs.

The higher level degrees had a higher percentage (masters equaled 45.1 percent; six-year equaled 62.7 percent; doctorate equaled 93.2 percent) that required written research/work as a program requirement.

Comprehensive Examination

The fourth subquestion for question number three was: Did a majority of the programs in the 1980 study require a comprehensive examination as a program requirement? Table 7 indicates that the comprehensive examination was required by a majority of all three degree levels.

The doctorate had the highest requirement (81.4 percent) of programs that required a comprehensive examination. This was followed by the master's level with a 65.3 percent requirement, and the six-year level with a 58.2 percent requirement of a comprehensive examination.

Residency

The fifth subquestion for question number three was: Did a majority of the programs in the 1980 study address residency as a program requirement? The majority of the institutions did not record residency as a program requirement for the master's and six-year program; specifically 32.6 percent of the masters and 40.3 percent of the six-year programs had a residency requirement. The higher level degrees had a tendency to require residency more often with 86.4 percent of the doctorate programs requiring residency. The questionnaire requested the "time" of residency to be completed by the respondents. Results were reported both in months and semester hours; therefore, no comparative data were developed.

Internship

The sixth subquestion for question number three was: Did a majority of the programs in the 1980 study stipulate an internship as a

program requirement? Table 7 demonstrates that an internship was required by less than 50 percent of any of the three degree levels. The highest requirement for an internship was 23.7 percent by the doctorate programs. The master's level required an internship in 19.7 percent of the programs and the six-year level had only an 8.3 percent internship requirement.

Credit Hour Costs

Credit hour costs varied from no charge to a high of $177.00 per credit hour. The mean charge was $43.52 for the masters; $51.52 for the six-year level; and $51.59 for the doctorate degree. Institutions that offered multiple degrees did not vary the charges for the degree levels. The credit hour charges by the 26 private institutions were higher than the 167 public institutions.

A review of data collected for question number three was summarized as: (1) the majority of all three degree levels required a minimum number of credit hours, a maximum time allocation for degree completion, and a comprehensive examination requirement, (2) a thesis/dissertation/scholarly paper was required by the majority of the six-year and doctorate level programs, (3) residency was a requirement for a majority of the doctorate programs, and (4) the internship requirement was not stipulated as a majority requirement by any of the three levels of degree.

QUESTION NUMBER FOUR--DEGREE EMPHASES

Question number four was: What characteristics existed in the emphases of the three levels of instructional technology graduate degree programs?

Degree Emphases

The first subquestion for question number four was: What degree emphasis was offered the most often and the least often? The statistical analysis indicated that there was no one emphasis offered the most often or the least often for all three levels of degrees. This statistic verifies the review of the literature regarding the emphasis of various levels of instructional technology graduate degree programs. In addition, most institutions tended to stress theory and research in the higher level degrees. The management/administration emphasis had the highest mean for all three degree levels.

Table 8 indicates that the master's level stressed the emphasis of materials production the most often. One hundred seventy-four of the 193 institutions indicated this area of emphasis. The other major emphases in the master's programs were utilization/application (86.5 percent) and management/administration (80.3 percent). The research emphasis category (42.0 percent) was indicated the least often at the master's level.

The greatest emphasis for the six-year degree level was management/administration (80.6 percent). There was no other emphasis that was strongly indicated. The lack of additional emphasis reflected the current status of six-year programs developing individualized programs for candidates.

The doctorate degree's highest emphasis was in research (96.6 percent) with 57 of the 59 programs indicating the research emphasis. Other emphases stressed for the doctorate program were instructional

development (95.0 percent), theory (91.5 percent), evaluation (89.8 percent), and instructional systems design (88.1 percent). Materials production (45.8 percent) received the lowest emphasis for the doctoral level, but was the highest emphasis offered for the masters (90.7 percent). The emphasis area of training was the lowest mean emphasis for all three degree levels. This author projects that the training emphasis will increase in response to industries' needs in future years.

Evaluation, instructional development, instructional systems design, research, and theory depicted a progressive increase in percent of emphasis from the master's, to the six-year, to the doctorate level. Materials production and utilization/application decreased in percent of emphasis from the masters, to the six-year, to the doctorate level. The emphasis areas of teaching and selection fluctuated in emphasis. The management/administration and training emphasis remained static for all three degree levels.

The data for question four has been summarized as: (1) the major emphases of the master's level programs were materials production and utilization/application of instructional technology, (2) the six-year degree level emphasized management/administration, but had no other major emphasis in the program, (3) the doctorate level had five areas of emphases. The main emphases of the doctorate programs were identified as research, followed by instructional development and theory, along with evaluation and instructional systems design.

Table 8

Emphases Areas Offered by Degree Level (1978-79)

Degree Level	Emphasis Area and Percent of Institutions Offering					
	Evaluation	Instructional Development	Instructional Systems Design	Management Administration	Materials Production	Research
Masters N = 193	56.0%	70.0%	61.7%	80.3%	90.7%	42.0%
Six-Year N = 67	65.7	70.2	64.2	80.6	68.7	49.3
Doctorate N = 59	89.8	95.0	88.1	78.0	45.8	96.6

Degree Level	Emphasis Area and Percent of Institutions Offering				
	Selection	Teaching	Theory	Training	Utilization/Application
Masters N = 193	71.0%	52.8%	57.0%	47.7%	86.5%
Six-Year N = 67	47.8	43.3	68.7	44.8	70.2
Doctorate N = 59	50.9	76.3	91.5	50.9	69.5

QUESTION NUMBER FIVE--ENROLLMENT DATA

Question number five was: What were the enrollment statistics of students in instructional technology graduate degree programs as majors/minors, full/part-time, foreign, out-of-state, and the number of graduates?

Student Enrollments

Subquestion one for question number five was: What were the 1978-79 total student enrollments in the three levels of instructional technology graduate degree programs? Data supplied by Table 9 indicates that the 1978-79 enrollment totals were 11,026 master's students, 793 six-year students, and 1,745 doctorate students for a cumulative total of 13,564 students.

Student Majors/Minors Enrollments

The second subquestion for question number five was: What were the percentages of total students enrolled as majors or minors? The data compiled for Table 9 indicates that 10,127 (91.8 percent) of the master's students were enrolled as majors and 899 students were enrolled as minors. An even higher percentage (98.4 percent) of the six-year students (780) were enrolled as majors, with only 13 six-year students declared as minors.

Similar high percentages were reported for the doctorate level. The 1,542 doctorate majors represented 88.4 percent of the total doctorate students.

Table 9

Enrollment Data by Degree Level (1978-79)

Degree Level And Totals	Category		
	Student Majors	Total Institutions	Mean Majors Per Institution
Masters N = 193	10,127	184	55.0
Six-Year N = 67	780	56	13.9
Doctorate N = 59	1,542	56	27.5
Totals* N = 193	12,449	193	64.5
	Student Minors	Total Institutions	Mean Minors Per Institution
Masters N = 193	899	48	18.7
Six-Year N = 67	13	6	2.7
Doctorate N = 59	203	27	7.5
Totals N = 193	1,115	193	5.8
	Full-Time Students	Total Institutions	Mean Full-Time Students Per Institutuion
Masters N = 193	2,256	154	14.7
Six-Year N = 67	168	31	5.4
Doctorate N = 59	549	49	11.2
Totals N = 193	2,973	193	15.4

(continued next page)

Table 9 (Continued)

Degree Level And Totals	Category		
	Part-Time Students	Total Institutions	Mean No. of Part-Time Students Per Institution
Masters N = 193	7,271	169	43.0
Six-Year N = 67	329	33	10.0
Doctorate N = 59	705	44	16.0
Totals N = 193	8,305	193	43.0
	Foreign Students	Total Institutions	Mean No. of Foreign Students Per Institution
Masters N = 193	566	102	5.6
Six-Year N = 67	25	12	2.1
Doctorate N = 59	203	36	5.6
Totals N = 193	794	193	4.1
	Out-of-State Students	Total Institutions	Mean No. of Out-of-State Students Per Institution
Masters N = 193	873	98	8.9
Six-Year N = 67	69	16	4.3
Doctorate N = 59	345	35	9.9
Totals N = 193	1,287	193	6.7

*Totals are comprised of differing proportions of students within each degree level.

Six institutions reported enrollments of over 200 student majors in each of their master's programs. One six-year program reported 40 student majors for the highest enrollment for a six-year program. The highest enrollment of majors for the doctorate program was 120.

The mean number of majors per institution was also calculated. There were 184 institutions with student majors at the master's level for a mean enrollment per institution of 55.0 student majors. The six-year major enrollments per institution numbered 13.9 students per institution. The doctorate enrollments numbered 27.5 student majors per institution.

Table 10 compared the enrollment numbers of instructional technology majors by degree level for the 1977-78 and 1978-79 studies. The 1978-79 study reported 184 institutions with 10,127 total student majors while the 1977-78 study reported 54 institutions and 4,435 student majors. Similar higher increases in student major enrollments were reported at the six-year level with 56 institutions and 780 total majors, compared to 12 institutions and 275 majors in 1977-78. The doctorate majors did not demonstrate the same degree of growth. In 1978-79, 56 institutions reported 1,542 student majors in instructional technology, while 34 institutions reported 1,157 student majors in 1977-78. No comparative analysis was developed because of the limitations of the 1977-78 study. Incomplete data were available on 30 programs identified in the 1977-78 study.

Table 10

Enrollment Numbers of Instructional Technology Majors by Degree Level

Degree Level and Year	No. of Institutions With Majors	Total Students	Mean No. of Students	% of Total Students By All Levels
Masters				
1977-78	54	4,435	82.1	75.6%
1978-79	184	10,127	55.0	81.3
Six-Year				
1977-78	12	275	22.9	4.7
1978-79	56	780	13.9	6.3
Doctorate				
1977-78	34	1,157	34.0	19.7
1978-79	56	1,542	27.5	12.4

Full-Time and Part-Time Students

The third subquestion for question number five was: What were the 1978-79 full-time and part-time student enrollents in the three levels of instructional technology graduate degree programs? Table 9 provided the number of full/part-time students for all three degree levels. The criteria established nine semester hours or the equivalent for a full-time enrollment status. There were 9,527 full/part-time master's students, 497 full/part-time six-year students and 1,254 full/part-time doctorate students for a cumulative total of 11,278 full/part-time students for all three degree levels.

A greater percentage of the enrollments for each level were part-time students. The master's level reported 76.3 percent part-time students, 66.2 percent of the six-year level students were part-time, and 56.2 percent of the doctorate level students were part-time enrollees. An internship or residency requirement for most doctorate degrees may

account for a higher percentage of students enrolled on a full-time basis. The mean full-time enrollments of 14.7 students for the master's programs were slightly higher than the 11.2 full-time enrollments at the doctorate level. The mean part-time enrollment of 43.0 students at the master's level was significantly higher than the six-year or doctorate level part-time enrollments. The greatest number of instructional technology graduate degree students were enrolled as part-time students in a master's program, followed by full-time master's students, and part-time doctorate students. Master's students represented approximately 84 percent of all students; six-year students composed approximately 5 percent of the total and the remaining 11 percent encompassed doctoral level students.

Foreign Student Enrollments

The fourth subquestion for question number five was: What were the 1978-79 foreign student enrollments in the three levels of instructional technology graduate degree programs? Table 9 presents 566 foreign students enrolled at the master's level; 25 foreign students for the six-year degree; and 203 doctorate foreign students, for a total of 794 foreign student enrollments. The master's level foreign students were enrolled at 102 of the 193 institutions while the doctoral foreign students were located at 36 of the 59 institutions offering a doctorate. There were only 12 institutions that reported an enrollment of 25 six-year foreign students. The mean number of foreign students enrolled per institution was 5.6 students for both the masters and doctorate. The 203 doctoral foreign students represented 16.1 percent of the total doctoral population.

Out-Of-State Student Enrollments

The fifth subquestion for question number five was: What were the 1978-79 out-of-state student enrollments in the three levels of instructional technology graduate degree programs? The master's program represented the greatest number of out-of-state students with 98 institutions reporting 873 out-of-state students. The six-year program reported the least number of out-of-state students with 69 students at 16 institutions. The doctorate program reported 345 out-of-state students at 35 institutions. The total out-of-state students was 1,287. The mean number of out-of-state students per institution was highest for the doctorate level with 9.9 students per institution.

Graduate Degrees Granted

The sixth subquestion for question number five was: What was the total number of graduate degrees granted in 1978-79 by the three levels of instructional technology graduate degree programs? This data was compared to the previous studies of 1968-69 and 1977-78. The data in Table 11 reflects an increase in total graduates from 1968 to 1979 for all three degree levels.

One hundred seventy-seven of the 193 programs reported 2,458 master's graduates in 1978-79. Thirty-nine institutions reported 216 six-year graduates and 51 institutions reported 267 doctoral graduates. The total graduate degrees granted in 1978-79 was 2,941 compared to 1,379 degrees in 1976-77 and 885 degrees in 1968-69. These statistics indicate a trend toward increasing the total number of graduate degrees granted in instructional technology. Additional comparative data were not developed because of the limitations in the 1968-69 and 1977-78 studies.

Table 11

Degrees Granted at Each Degree Level

Degree Level and Year	Total Institutions	Total Institutions Granting Degree	Total Graduates	Mean Graduates Per Institution Granting Degree
Masters				
1968-69	66	57	718	12.6
1975-76	61	52	1,112	21.4
1976-77	61	57	1,164	20.4
1978-79	193	177	2,458	13.9
Six-Year				
1968-69	66	15	44	2.9
1975-76	61	12	63	5.3
1976-77	61	12	78	6.5
1978-79	67	39	216	5.5
Doctorate				
1968-69	66	35	123	3.5
1975-76	61	22	130	5.9
1976-77	61	21	137	6.5
1978-79	59	51	267	5.2

A summary of the enrollment data available from the 1980 study indicated that: (1) the greatest number of enrollments for all categories of students was located at the master's level, the second highest enrollment was the doctorate level and the six-year degree level represented the smallest enrollment for each category, (2) the number of student majors was greater than the number of student minors for each degree level, (3) the number of part-time students was greater than the number of full-time students for each degree level, (4) the number of foreign students and out-of-state students was greatest at the master's level followed by the doctorate and six-year level, and (5) the greatest number of total graduates was at the master's level followed by the

doctorate and six-year levels. In addition, the comparative data available from the 1968-69, 1977-78 and 1978-79 studies indicated that: (1) there was an increase in the total number of students enrolled in instructional technology in each progressive year, and (2) the total number of degrees granted for each level had increased with the progressive studies.

QUESTION NUMBER SIX--INSTRUCTIONAL TECHNOLOGY FACULTY DATA

Question number six was: What were the characteristics of instructional technology graduate programs' faculty regarding full/part-time employment, rank, and the highest degrees held?

Full/Part-Time Faculty

The first subquestion for question number six was: What was the total number of instructional technology faculty members employed both full- and part-time in 1978-79 by institutions with instructional technology graduate degree programs? Tables 12, 13, 14, and 15 address this subquestion. There were 788 full-time faculty members and 469 part-time faculty members employed by the 193 instructional technology graduate degree programs in 1978-79 for a cumulative total of 1,257. Full-time faculty members accounted for 62.7 percent of the total faculty employed in 1978-79. The largest full-time faculty reported was 18. A full-time faculty of 1 to 5 members was reported by 146 of the 193 programs. The mean full-time faculty size was 4.1 faculty members per program. One program recorded 29 part-time faculty members, but all programs had a mean of 3.4 part-time faculty members. The 1978-79 full-

time faculty count of 788 was compared to the 1968-69 full-time faculty count of 405 and the 1977-78 faculty count of 382. Additional comparative data regarding instructional technology graduate faculty were not available due to the limitations of the 1968-69 and 1977-78 studies.

Faculty Academic Ranks

The second subquestion for question number six was: What were the academic ranks held by the full- and part-time instructional technology graduate faculty in 1978-79? Tables 12 and 13 address this question. The rank of full professor was held most often with 242 (30.7 percent) of the 788 full-time faculty being regarded as a full professor. The associate professor rank was the second most prominent rank with a 30.3 percent status. This was followed by the assistant professor rank with a 28.4 percent ranking, and a 6.9 percent status for the instructor rank. The rank category of "other" mostly indicated an administrator or adjunct professor status. The part-time faculty ranks were not classified as highly in rank order as full-time faculty, and many held no rank at all.

Table 12 depicts a comparison of the full-time faculty ranking for the years 1968-69, 1977-78, and 1978-79. The percentage of faculty holding the upper level ranks increased with each progressive study. These statistics implied that faculty members have either been promoted between data collected or that replacement faculty have been employed with a higher faculty rank.

Table 12

Full-Time Faculty Holding Rank Indicated

Year	Rank					
	Instructor	Assistant	Associate	Professor	Other	Total
1968-69						
N	71	138	86	94	16	405
%	17.5%	34.0%	21.3%	23.2%	4.0%	100.0%
1977-78						
N	45	90	116	118	13	382
%	12.0%	23.5%	30.0%	31.0%	3.5%	100.0%
1978-79						
N	54	224	239	242	29	788
%	6.9%	28.4%	30.3%	30.7%	3.7%	100.0%

Table 13

Part-Time Faculty Holding Rank Indicated (1978-79)

Year	Rank					
	Instructor	Assistant	Associate	Professor	Other	Total
1978-79						
N	87	86	72	55	169	469
%	18.6%	18.3%	15.4%	11.7%	36.0%	100.0%

Degrees Held By Faculty

The third subquestion for question number six was: What degrees were held by the full- and part-time instructional technology graduate degree faculty in 1978-79? Tables 14 and 15 present this data. The greatest percentage of both full-time and part-time graduate instructional technology faculty held the doctorate degree in 1978-79.

Five hundred ninety-two of the 788 full-time faculty (75.1 percent) held doctorate degrees. In addition, doctorates were held by 64.8 percent of all part-time faculty. The master's degree was the second most common degree held by the faculty.

Only eight faculty members were reported as holding a bachelor's degree. This constituted less than 1 percent of all full- and part-time faculty.

Table 14

Full-Time Faculty Holding Degree Indicated

	Degree					
Year	Bachelors	Masters	Six-Year	Doctorate	Other	Total
1968-69						
N	6	166	3	227	3	405
%	1.5%	41.0%	0.7%	56.1%	0.7%	100.0%
1977-78						
N	1	91	9	264	5	370
%	0.3%	24.6%	2.4%	71.3%	1.4%	100.0%
1978-79						
N	6	172	18	592	0	788
%	0.8%	21.8%	2.3%	75.1%	0.0%	100.0%

Table 15

Part-Time Faculty Holding Degree Indicated (1978-79)

	Degree					
Year	Bachelors	Masters	Six-Year	Doctorate	Other	Total
1978-79						
N	2	132	31	304	0	469
%	0.4%	28.2%	6.6%	64.8%	0.0%	100.0%

The 1978-79 faculty degree data was compared to the 1968-69 and 1977-78 studies in Table 14. The analysis depicted a definite trend for the full-time instructional technology faculty to hold advanced degrees.

The analysis identified an increase of approximately 20 percent in full-time faculty holding the doctorate degree. Significant growths in advanced degrees were reported from 56.1 percent in 1968-69 to 75.1 percent in 1978-79. It appeared that a correlation existed between the increased percentage of the faculty possessing a doctorate degree and the increase in the percent of faculty holding advanced rank.

The following summary addressed the status of faculty members employed in 1978-79 by institutions with instructional technology graduate degree programs: (1) there were 788 full-time and 469 part-time faculty members employed in 1978-79, (2) the largest percent of the full-time faculty held the professor's rank, and (3) the majority of the faculty had a doctorate degree. The statistical comparison of the 1978-79 study to the 1968-69 and 1977-78 studies indicated an increase in the number and percent of faculty with advanced degrees and elevated rank.

QUESTION NUMBER SEVEN--PROGRAM FEATURES

Question number seven was: What characteristics existed for instructional technology graduate degree programs regarding state certification, specialty areas/majors, financial assistance, facilities, and equipment?

State Certification

The first subquestion for question number seven was: Do a majority of the programs identified in the 1978-79 study offer state certification?

Table 16

Institutions and the Number of State Certification Titles Offered (1978-79)

Number of Certificate Titles	Number of Institutions Offering	% of Total Institutions Offering N = 193
0	63	32.6%
1	70	36.3
2	35	18.1
3	14	7.3
4	11	5.7
Total	193	100.0%

Table 16 presents a compilation of instructional technology degree programs and specified the number of state certifications offered. The majority (67.4 percent) of the institutions offered at least one state certification, although 63 institutions (32.6 percent) did not offer any state certification. Of the 130 institutions which offered state certification, 70 provided one certificate, 35 offered two certificates, 14 offered three certificates, and 11 offered four certificates. The media specialist title was the most common name identified for state certification. See Appendix G for a total listing of titles for state certifications identified in the 1978-79 study.

Specialty Areas/Majors

The second subquestion for question number seven was: Do the majority of the programs identified in the 1978-79 study offer a specialty area (subjects or fields) that could be interpreted as a major? Table 17 indicates that 52.3 percent of the 193 institutions did not provide any specialty areas. However, 92 institutions, a non-majority, offered 54 different specialty areas. In addition, 55 institutions offered two or more specialty areas. One institution offered 9 specialty areas. Table 18 identifies the areas of administration and management as the most common specialty available.

This data correlated with the statistical analysis regarding degree emphases. (See question number four for the specific analysis.)

Table 17

Institutions and the Number of Specialty Areas or Majors Offered (1978-79)

Number of Specialty Areas For Majors	Number of Institutions Offering N = 193	% of Total Institutions Offering
0	101	52.3%
1	37	19.2
2	21	10.9
3	15	7.8
4	12	6.2
5	4	2.1
6	0	0.0
7	1	0.5
8	1	0.5
9	1	0.5
Total	193	100.0%

Table 18

Frequency of Specialty Areas (Subjects or Fields)
in Which Students May Major (1978-79)*

Major N = 54	Frequency of N = 208	% Major Offered
Educational Media	11	5.3%
Educational Technology	11	5.3
Instructional/Media Design	10	4.8
Instructional Development	10	4.8
Library School Services	11	5.3
Library Science	11	5.3
Media/Educational Administration/Management	16	7.7
Media Production	13	6.3
Other	115	55.2

*See Appendix H for the list of 54 specialty areas.

Financial Assistance

The third subquestion for question number seven was: Did the majority of the programs identified in the 1978-79 study offer financial assistance? The majority of the programs did offer a variety of financial assistance. Only 33 of the 193 institutions reported they did not offer any form of financial assistance.

Table 19 indicates that 67.4 percent of the programs offered the graduate assistant as a form of financial assistance. The teaching assistant format was offered by 24.9 percent of the programs. The tuition waiver assistance was provided by 19.2 percent of the programs. The fellowship assistance was offered by 11.4 percent of the programs. Table 19 was utilized to compare the format of financial assistance for

the 1978-79 study with the 1954-55, 1968-69, and 1977-78 studies. The statistical analysis revealed that the graduate assistant format was the most common type of financial assistance offered in all four studies. In addition, the teaching assistant category was the second most available financial assistance.

The 1978-79 study identified 130 programs which offered graduate assistant positions. One hundred and ten programs reported on the number and salary of graduate assistant positions. The analysis indicated that there were 526 graduate assistant positions offered with a mean annual salary of $3,226. The highest annual salary for a graduate assistant was $10,000. One institution reported offering 77 graduate assistant positions.

Table 19

Types of Financial Assistance Offered

Types	Academic Year and % of Institutions Offering			
	1954-55 N = 50	1968-69 N = 66	1977-78 N = 61	1978-79 N = 193
Fellowship	6.0%	27.3%	N/A	11.4%
Graduate Assistant	40.0	78.8	78.7%	67.4
Research Assistant	2.0	--	8.2	12.4
Scholarship	--	4.6	N/A	13.0
Teaching Assistant	30.0	33.3	45.9	24.9
Tuition Waiver	--	4.6	57.4	19.2
Other	72.0*	40.9	31.2**	8.3

*Part-time employment, hourly wage, interns, loans.

**Scholarships and fellowships were reported in "other" category on study.

Forty-eight programs provided teaching assistant positions. Thirty-seven schools were reported to offer 127 teaching assistant positions with a mean annual salary of $3,502. The highest teaching assistant salary reported was $6,400. One institution offered 12 teaching assistant positions.

Scholarships were provided as a form of financial assistance by 25 programs. Only eight programs reported the number and amounts of the scholarships they offered. The mean amount of the 23 reported scholarships was $3,430. One institution offered one scholarship for $5,600. Those institutions that did not specify the number and amounts of the scholarships reported they varied.

Graduate fellowships were offered by 22 programs. Thirteen of the 22 schools reported they offered 34 fellowships with a mean amount of $3,450 per year. The largest number of fellowships offered by one program was 7, with the highest salary of $6,000 per year.

Research assistant positions were provided by 24 programs. Fourteen of the 24 programs reported 37 research assistant positions with a mean of $4,216 per year. One program offered 11 research assistants and the highest salary reported was $16,000 per year.

Thirty-seven programs reported the availability of tuition waivers. The amounts of the waivers varied from $600 to $5,000 per year. In addition, a system of tuition payment was often correlated with graduate assistant positions, teaching assistant positions, research assistant positions, fellowships, and scholarships.

The amount of financial assistance available in 1954-55 compared with 1968-69, compared with 1977-78, compared with 1978-79 had increased significantly. However, the monetary gain was limited by inflation.

Table 20

Mean Yearly Dollars of Types of Financial Assistance Offered*

Type	Academic Year			
	1954-55	1968-69	1977-78	1978-79
Fellowship	$ 800	$3,346	--	$3,450
Graduate Assistant	1,200	1,558	2,985	3,226
Research Assistant	3,600	--	--	4,216
Scholarship	--	--	--	3,430
Teaching Assistant	2,300	3,410	3,970	3,502

*Most of the types of financial assistance include tuition payments as part of the assistance.

Facilities and Equipment

The fourth subquestion for question number seven was: What facilities and equipment were available in 1978-79 to the instructional technology graduate degree programs? Table 21 indicates that a majority of the programs had available all ten facilities and equipment itemized on the 1980 questionnaire. The control of facilities and equipment was an unconstant variable. Eighty-eight point one percent of all programs identified equipment operation as the item most available to them.

A production lab was also reported as available to 82.9 percent of the programs. In addition, an audio laboratory, darkroom, graphics laboratory, and television studio were all available and under the programs' control in more than 50 percent of the programs.

In a greater percentage of programs, the computer assisted instruction (CAI) laboratory and repair laboratory were available but not under the instructional technology programs direct control. In

addition, a research laboratory was not available to 45.1 percent of the programs. The programs also reported 43.5 percent did not have access to a repair laboratory.

Table 21 was also utilized to compare the data collected in the 1977-78 study. Data were collected on 61 of the 91 identified programs in 1977-78. This incomplete data collection does not allow for valid comparisons. Raw statistics, however, demonstrated considerable differences in the 1977-78 and 1978-79 studies on the availability and control of the computer assisted instruction (CAI) laboratory, darkroom, and production laboratory.

Table 21

Types of Facilities and Equipment Available

Facilities or Equipment	% of Institutions Not Offering		% Available Under Programs Control		% Available But Not Available Under Programs Control	
	1977-78	1978-79	1977-78	1978-79	1977-78	1978-79
Audio Lab	4.0%	13.5%	62.0%	60.6%	34.0%	25.9%
Audiovisual Tutorial Lab	--	25.4	--	47.7	--	26.9
Computer (CAI)* Lab	0.0	21.2	20.0	34.2	80.0	44.6
Darkroom	5.0	5.7	82.0	69.4	13.0	24.9
Equipment Operation	2.0	3.1	93.0	88.1	5.0	8.8
Graphics Lab	--	10.9	--	72.5	--	16.6
Production Lab	2.0	6.2	95.0	82.9	3.0	10.9
Repair Lab	31.0	43.5	28.0	26.9	41.0	29.5
Research Lab	33.0	45.1	33.0	27.5	34.0	27.5
Television Studio	2.0	8.8	52.0	51.3	46.0	39.9

*Computer Assisted Instruction

Responses to question number seven were summarized as: (1) the majority of all instructional technology graduate degree programs offered state certification, (2) the majority of the instructional technology graduate degree programs did not offer a specialty area that could be identified as a major, (3) financial assistance was offered by a majority of the programs in a wide variety of formats, and (4) the majority of the facilities and equipment resources are available to the instructional technology graduate programs for their use.

QUESTION NUMBER EIGHT--CURRICULUM

Question number eight was: What were the number of courses offered by the instructional technology graduate degree programs?

All 193 programs identified offered at least one course in the management/administration of media; one course in the production of media; and one course in the utilization of media. All programs were required to fulfill this criteria before being considered as a bona fide instructional technology graduate degree program. The least number of total courses offered by an "instructional technology" department was four. Only four programs reported offering such a limited number of courses. Five programs reported offering a total of five courses per program. The other 184 programs offered from 6 to 60 courses. Forty-four programs offered 6 to 10 courses; 80 programs offered 11 to 20 courses; 41 programs offered 21 to 30 courses; 15 programs offered 31 to 40 courses; 2 programs offered 41 to 50 courses; and the other 2 programs reported 56 and 60 courses, respectively. The mean number of courses offered was 17.3 courses per program.

CORRELATION ANALYSES

Specific data collected via the 1978-79 questionnaire were analyzed for correlation analyses. The correlation analyses were analyzed using the Pearson product-moment correlation coefficient. The .05 level of confidence was selected for acceptance or rejection of the interfactor correlations. One purpose of the study was to benefit graduate candidates in their selection and decisions regarding specific programs. It was proposed that program variables had significant correlation factors. These correlations were utilized to assess the program attributes.

Table 22 identified 21 variables that were compared to the number of students enrolled in programs.

The first two correlations were concerned with the variable of faculty and students. The first correlation inquired if there was a correlation between the number of students in a program and the number of faculty members. A Pearson score of 0.25 was reported for this correlation. This was significant at the .001 level of confidence. This indicated the more/less the number of students, the more/less faculty members were employed. Correlation two addressed the correlation between the percent of faculty with doctorate degrees and the total master's, six-year, doctorate, or total students enrolled: Significant scores were reported for all four comparisons. Ranges of correlation were reported from Pearson r of -0.15 to -0.36. This negative trend correlation indicated that as the percent of faculty with doctorates increased, the total number of students at each level decreased, or the reverse.

The third correlation concerned the total degrees offered and the total students. The Pearson r of -0.69 was highly significant. The negative correlation indicated that as the number of total degrees offered increased, there were fewer students enrolled, or the reverse.

The fourth correlation compared total degree emphases and total students. The Pearson r of 0.18 indicated that there existed a significant difference at the .001 level of confidence.

A comparison was made between the total courses offered and the total students. The results indicated a significant difference at the .001 level, with a negative correlation.

Another negative correlation was computed by comparing the total types of financial assistance to the total students. A Pearson r of -0.39 was reported. This was significant at the .001 level of confidence.

The seventh correlation compared the cost per credit hour to the students enrolled in each of the three degree levels. No significant differences were recorded for the master's level. However, the six-year and doctorate levels both recorded significant negative correlations. The scores were a Pearson r of -0.05 and -0.51, respectively.

Transfer credit and total students in each of the three degree levels were compared. The results were similar to those reported for the credit hour costs. No significant differences were recorded for the master's level, but there were significant differences for the six-year and doctorate levels. This would indicate that the more transfer credits accepted, the more total students that were enrolled in the six-year and doctorate degree.

The next correlations concerned the admissions requirements. Specifically, the graduate record exam (GRE), Miller Analogies Test (MAT), and grade point average (GPA) were compared to the number of students enrolled in each of the three degree levels. Results indicated that there were no significant differences in requiring the GRE, MAT, and GPA at the master's level and the total number of students enrolled. However, significant differences were reported for both the number of six-year and doctorate students and the identified admissions requirements. These correlations were significant to the .001 level of confidence.

Table 23 depicted 11 comparisons compared from data collected on the 1980 questionnaire concerning graduate degree programs in instructional technology.

The number of total faculty members was compared to the number of total courses offered by the instructional technology program. The results were a Pearson score of -0.07, which was not significant.

The time allowed for degree completion was compared to the number of degree graduates. The results verified that this was not significant at the master's level but highly significant at the six-year and doctorate levels.

The next correlation addressed the total types of facilities available and the number of courses. The positive correlation of an r of 0.18 indicated that there were more facilities and equipment available as the number of courses increased.

The graduate record exam and Miller Analogies Test were compared to the total types of financial assistance available. There were no significant differences at the master's level between the GRE/MAT requirement and the total types of financial assistance. The six-year degree reported a Pearson score of -0.12 for a significance at the .05 level between the GRE and total types of financial assistance. However, no significant difference was reported for the six-year comparison of MAT and total financial assistance.

The following is a summary of the interfactor correlations for variables regarding instructional technology graduate degree programs: (1) there were significant differences in the number of students enrolled in the programs and total faculty members, percent of faculty with doctorates, total degrees offered, total degree emphases, total courses offered, and total types of financial assistance offered, (2) there were also significant differences in number of students in the six-year and doctorate program and the cost per credit hour, transfer credits, GRE required, MAT required, and GPA required, (3) there were no significant differences recorded for comparing the number of master's students and the cost per credit hour, transfer credits, GRE required, MAT required, and GPA required, (4) significant differences were recorded between the number of graduates and the time allowed for the six-year and doctorate degree; there was no significant difference for the same correlation at the master's level, (5) no significant differences existed when the number of courses and total faculty members were compared, (6) there was a significant difference when the number of courses were compared to the types of facilities and equipment, and (7) there existed no significant differences between the GRE and MAT admission requirements and total types of financial assistance for the master's level.

Table 22

Variables Correlating with Number of Students Enrolled in Program

(N = 193)

Predictor Variable	Outcome Variable			
	Total Students	Masters Students	Six-Year Students	Doctorate Students
Total Faculty Members	r = 0.25 ***	(-)	(-)	(-)
Percent Faculty With Doctorates	r = -0.36 ***	r = -0.22 ***	r = -0.15 *	r = -0.36 ***
Total Degrees Offered	r = -0.69 ***	(-)	(-)	(-)
Total Degree Emphases	r = -0.18 ***	r = 0.10 (NS)	r = -0.80 ***	r = -0.83 ***
Total Courses Offered	r = -0.22 ***	(-)	(-)	(-)
Total Types Financial Assistance Offered	r = -0.39 ***	(-)	(-)	(-)
Cost Per Credit Hour (Masters)	(-)	r = 0.04 (NS)	(-)	(-)
Cost Per Credit Hour (Six-Year)	(-)	(-)	r = -0.50 ***	(-)
Cost Per Credit Hour (Doctorate)	(-)	(-)	(-)	r = -0.51 ***
Transfer Credits Allowed (Masters)	(-)	r = -0.03 (NS)	(-)	(-)
Transfer Credits Allowed (Six-Year)	(-)	(-)	r = 0.63 ***	(-)
Transfer Credit Allowed (Doctorate)	(-)	(-)	(-)	r = 0.74 ***
GRE Required for Admissions (Masters)	(-)	r = 0.11 (NS)	(-)	(-)
GRE Required for Admissions (Six-Year)	(-)	(-)	r = 0.59 ***	(-)
GRE Required for Admissions (Doctorate)	(-)	(-)	(-)	(-)

Table 22 (continued)

Predictor Variable	Outcome Variable: Total Students	Masters Students	Six-Year Students	Doctorate Students
MAT Required for Admissions (Masters)	(-)	r = -0.01 (NS)	(-)	(-)
MAT Required for Admissions (Six-Year)	(-)	(-)	r = 0.31 ***	(-)
MAT Required for Admissions (Doctorate)	(-)	(-)	(-)	(-)
GPA Required for Admissions (Masters)	(-)	r = 0.07 (NS)	(-)	(-)
GPA Required for Admissions (Six-Year)	(-)	(-) ***	r = 0.65	(-)
GPA Required for Admissions (Doctorate)	(-)	(-)	(-)	r = 0.69 ***

(* = Significant at $p \leq .05$)
(** = Significant at $p \leq .01$)
(*** = Significant at $p \leq .001$)

(-) = Not Computed
(NS) = Not Significant

Table 23

Variables Correlating with Number of Courses, Total Types of Financial Assistance, and Number of Graduates

(N = 193)

Predictor Variable	Outcome Variable: Number of Courses	Outcome Variable: Total Types of Financial Assistance	Outcome Variable: Number of Graduates
Total Faculty Members	r = -0.07 (NS)	(-)	(-)
Time Allowed for Degree Completion (Masters)	(-)	(-)	r = 0.05 (NS)
Time Allowed for Degree Completion (Six-Year)	(-)	(-)	r = -0.60 ***
Time Allowed for Degree Completion (Doctorate)	(-)	(-)	r = -0.76 ***
Total Types of Facilities and Equipment Available	r = 0.18 **	(-)	(-)
GRE Required for Admissions (Masters)	(-)	r = -0.10 (NS)	(-)
GRE Required for Admissions (Six-Year)	(-)	r = -0.12 *	(-)
GRE Required for Admissions (Doctorate)	(-)	(-)	(-)
MAT Required for Admissions (Masters)	(-)	r = -0.10 (NS)	(-)
MAT Required for Admissions (Six-Year)	(-)	r = -0.11 (NS)	(-)
MAT Required for Admissions (Doctorate)	(-)	(-)	(-)

(* = Significant at $p \leq .05$)
(** = Significant at $p \leq .01$)
(*** = Significant at $p \leq .001$)

(-) = Not Computed
(NS) = Not Significant

SUMMARY

The Analysis of the Data, has examined the data collected from the 193 identified instructional technology graduate degree programs in United States colleges and universities. Data compared were admissions requirements, program requirements, degree emphases, enrollment data, faculty data, program features, and curricula. Eight research questions were formulated for use in developing and analyzing the data and results. Specific summaries of each of the eight research questions are located in the conclusions section.

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The purpose of this study was to describe and analyze instructional technology graduate degree programs in United States colleges and universities. Specific characteristics of the graduate degree programs were researched and analyzed. The characteristics evaluated included: general program data, admissions requirements, program requirements, degree emphases, enrollment data, faculty data, program features, and curricula. In addition, the study was designed to develop a valid reference source for the three levels of graduate instructional technology degree programs. The results of the study could be used by potential students, educators, and professional people in all fields to compare and analyze the identified instructional technology graduate degree programs located in the United States. Furthermore, a thorough publication that identified and analyzed all levels of instructional technology graduate degree programs would enhance the identity of the profession.

The identity of the instructional technology profession hinges on the surveys which are sporadically conducted. When this study was initiated in 1977, all comparative publications regarding instructional technology graduate degree programs were either outdated, deficient, or both. Dr. Howard Hitchens, executive director of the Association for

Educational Communications and Technology, and Dr. Gary Mc Coneghy, professor of education, Northern Illinois University, De Kalb, Illinois, encouraged the researcher to address the issue and develop a comprehensive comparative on the three levels of instructional technology graduate degree programs.

A review of the literature depicted several studies that had identified and compared instructional technology graduate degree programs in the United States. However, these studies did not provide a complete listing of the programs nor a thorough analysis of program features.

The first visual instruction course was offered for credit in 1918. Only four schools offered visual instruction courses in 1922. Ten years later, 21 educational institutions offered courses in visual instruction.

The United States Office of Education indicated 114 colleges and universities offered audio-visual courses in the Forties. The first instructional technology graduate degree inventory was developed in 1955. It described 50 institutions which offered graduate courses in three audiovisual areas. A directory developed in 1968-69 surveyed and identified 67 instructional technology graduate degree programs. Several programs were omitted from the report and the data were incomplete. The 1978 directory identified 91 institutions with instructional technology graduate degree programs in 1977-78. However, only 61 of the 91 institutions supplied data for review.

A further review of the literature revealed a variety of professional opinions on what constituted a successful graduate program. Attributes and competencies preferred in the instructional technologist

were extensively discussed. The curricula needs for instructional technology graduate degree programs and the standards for accreditation and certification were reviewed. The role of certification/accreditation to advance the instructional technology profession was also highlighted.

Data for the study were collected by means of a questionnaire which was sent to 193 institutions with identified instructional technology graduate degree programs. A 100 percent response was obtained from the identified population. Eight research questions were formulated and analyzed by utilizing the raw data from the questionnaires.

CONCLUSIONS

General Data

The first research question asked in the study was: "What characteristics existed in the number, program continuations, geographic location, organizational structure, department name, and types of degree of instructional technology graduate degree programs?"

Based on the study's data, the following conclusions were offered. Firstly, there has been a major trend to increase the number of instructional technology graduate degree programs. The directory in 1954-55 identified 50 programs; the 1968-69 directory identified 67 programs; the 1977-78 directory identified 91 programs; and the 1978-79 study identified 193 instructional technology graduate degree programs. Secondly, there has been an identifiable trend for 90 percent of the programs to be established and continued. Thirdly, there has been a trend for the new programs identified in this study to correlate with the location of the previous studies. The southern (sunbelt) states

experienced a moderate growth in the percent of total programs. Fourthly, there has been a trend for the programs to continue to be located in the college/school of education. Fifthly, there has been a trend for the department names to change and increase in the number of descriptors. And finally, there has been a trend for the types of degrees offered to be in education.

These findings indicated the three previous studies that identified and analyzed the instructional technology graduate degree programs in the United States were extensively lacking in their results.

Admissions

Research question number two was related to admissions. It specifically asked: "What were the admissions requirements for the master's, six-year, and doctoral instructional technology programs, and was transfer credit accepted?"

The data for question two verified that a majority of the master's, six-year, and doctorate programs required the Graduate Record Exam (GRE) for admission to their program. The higher the level of degree the greater the percent of institutions that required the GRE. The doctorate level required a higher score than did either the six-year or master's level.

The majority of the programs for all three levels required an undergraduate or graduate grade point average (GPA). The mean undergraduate GPA required for the master's was 2.8. Graduate GPAs of 3.1 and 3.2 were required for the six-year and doctorate, respectively. The four-point scale was used for analyzing the GPA scores. A majority of the programs also accepted transfer credit. The most common number of

hours accepted by various programs was 6 hours for the master's degree, 6 hours for the six-year degree, and 30 hours for the doctorate degree.

In addition, the results indicated that the majority of the programs at all three levels did not require the Miller Analogies Test (MAT), a special examination, or teaching experience as admissions requirements to instructional technology graduate degree programs. The admissions requirements were progressively more difficult for each level of the degree.

Program Requirements

The third research question was: "What characteristics existed in instructional technology graduate degree programs regarding the hours of credit, time allocations for degree completion, thesis/dissertation/ scholarly paper, comprehensive examinations, residency requirements, internship, and costs per credit hour?"

Respondents reported the majority of all three degree levels required a minimum number of credit hours. The master's degree mean requirement was 32.7 hours; the six-year degree required 64.0 hours; and the doctorate level reported 89.6 hours as the mean number of semester hours or equivalent for the specific degree.

A maximum time allocation was also a stipulation by a majority of the programs for degree completions. The master's degree programs most often listed 6 years for the time allowed for degree completion. The six-year and doctorate specified 6 years and 7 years, respectively, as the most common time allowance for degree completion after admission.

A comprehensive examination was identified by a majority of the programs as a requirement for all three degree levels. In addition,

a thesis/dissertation/scholarly paper was required by the majority of the six-year and doctorate level programs. Residency was only a requirement for a majority of the doctorate programs, and the internship requirement was not stipulated as a majority requirement by any of the three levels of degree.

Degree Emphases

Degree emphases were the subject of the fourth research question. The facets considered by the question were: "What characteristics existed in the emphases of the three levels of instructional technology graduate degree programs?"

The data for question four indicated the major emphasis of the master's level programs were materials production and utilization/application of instructional technology. The six-year degree level emphasized management/administration. The doctorate level depicted five areas of emphases. The main emphases of the doctorate programs were identified as research, followed by theory and evaluation, along with instructional development and instructional systems design.

Enrollment Data

The fifth research question was: "What were the enrollment statistics of students in instructional technology graduate degree programs as major/minors, full/part-time, foreign, out-of-state, and the number of graduates?"

The statistics indicated that the greatest number of enrollments for all categories of students was located at the master's level;

the second highest enrollment was the doctorate level; and the six-year degree level represented the smallest enrollment for each category. Statistics also demonstrated that the number of student majors was greater than the number of student minors for each degree level. In addition, the comparative data reflected that the number of part-time students was greater than the number of full-time students for each degree level. The results indicated that the number of foreign students and out-of-state students was greatest at the master's level followed by the doctorate and six-year level. The greatest number of total graduates was at the master's level followed by the doctorate and six-year levels. In addition, the comparative data available from the 1968-69, 1977-78 and 1978-79 studies indicated that there was an increase in the total number of students enrolled in instructional technology in each progressive year, and the total number of degrees granted for each level of degree had increased with the progressive studies.

Faculty Data

The sixth research question was: What were the characteristics of the instructional technology graduate programs' faculty regarding full/part-time employment, rank, and the highest degrees held?

The findings indicated there were 788 full-time and 469 part-time faculty employed in 1978-79 by the institutions which offered instructional technology graduate degree programs. The largest percent of the full-time faculty held the rank of professor. The majority of the faculty had doctorate degrees. The statistical comparison of the 1978-79 study to the 1968-69 and 1977-78 studies indicated an increase in the number and percent of faculty with advanced degrees and elevated rank.

Program Features

Research question seven was: "What characteristics existed for instructional technology graduate degree programs regarding state certification, specialty areas/majors, financial assistance, facilities, and equipment?"

Analyses of the data revealed the majority of all instructional technology graduate degree programs offered state certification as a program feature. The data revealed there were 54 different names listed for state certificates. The media specialist title was the most common name identified for state certification.

The majority of the instructional technology graduate degree programs did not offer a specialty area that could be identified as a major. There were 54 different specialty areas/majors reported by the 92 institutions offering a specialty area.

Financial assistance was offered by a majority of the programs in a wide variety of formats. The graduate assistant was the most common offered financial assistance. It was also noted that the salaries for financial assistance had not kept pace with inflationary statistics.

The data also indicated that the majority of the facilities and equipment resources were available to the instructional technology graduate programs for their use.

The equipment operation laboratory was the most available facility, while the research laboratory and repair laboratory were the least available resources.

Curriculum

The eighth research question was: "What were the number of courses offered by the instructional technology graduate degree programs?

All 193 programs identified offered at least one course in the management/administration of media; one course in the production of media; and one course in the utilization of media.

The mean number of courses offered was 17.3 courses per program.

RECOMMENDATIONS

In the past 25 years, the number of institutions offering instructional technology graduate degree programs has grown dramatically (400 percent). This study identified deficiencies in the previous three studies that listed and compared instructional technology graduate degree programs in the United States.

The goal of the study was to conduct thorough research and analyze the data, thereby enhancing the recognition, development, and success of the instructional technology graduate degree programs in the United States colleges and universities. It is within this context that the following recommendations were developed.

Recommendation 1: Annual Survey

A thorough survey of all instructional technology graduate degree programs should be conducted annually. This comprehensive survey and the study results should be given top priority by both the administrator and faculty members of all graduate instructional degree programs. In addition, the Association for Educational Communications and Tech-

nology (AECT), the professional organization, needs to address this issue in developing the organization's long- and short-range goals. It is further recommended that AECT assume an active role in providing funding, publication, and distribution of survey results.

A preliminary needs survey should be developed to identify data that programs need to compare. It is crucial that the survey address appropriate data which the programs and profession can utilize. Objective data is needed by the professional personnel in the field, prospective students in the field, and educators and professional people of all fields to compare and analyze instructional technology graduate degree programs located in the United States. An annual survey and analysis would provide a mechanism for evaluation of the programs current status with previous years, and compare the individual programs with other programs and national trends. This would assist in identifying and controlling the direction of instructional technology education.

Recommendation 2: Name Selection

The advertising and marketing profession has demonstrated the value in identifying with a specific name. The utilization of slogans, theme-lines, and by-lines are not underestimated in sales. People buy "name" products. The instructional technology profession has futilely attempted to establish definitions or descriptors used in the field. The profession is currently plagued with an identity crisis. The multiple use of terms continues to dilute the profession. It is strongly recommended that a common, limited listing be compiled for: (1) department names, (2) certificate titles, (3) specialty/major names, (4) degree emphases, (5) course names, and (6) professional personnel names. The

proliferation of a variety of names for each of these categories has both confused and weakened the profession. National, state, local, educational, and professional fields need to standardize usage of terms that describe or categorize instructional technology graduate degree programs. Time is of the essence. Instructional technology graduate programs must internalize that, "Things go better with a name," if they are to survive the technology boom.

Recommendation 3: Professional Involvement

Administrators and faculty of the instructional technology graduate degree programs need to assume an effective leadership role in the direction of the profession. Issues that need to be addressed include: Regulation, standardization, accreditation, and evaluation of the instructional technology field. Specifically, the profession needs to establish a more viable professional organization with membership composed of all professional personnel in the instructional technology graduate degree programs.

The first two recommendations should be immediately implemented by the professional association (AECT). The Association is the most viable mechanism available for both analyzing and standardizing a somewhat diluted profession. The Association should provide leadership in developing and analyzing an annual program survey. This appears to be a staff responsibility with committee and officer input.

In addition, the Association appears to be the most viable avenue in addressing the issue regarding the lack of a common name or descriptor for departments, certification programs, specialty areas, degree emphases, and professional personnel titles. This concern could

be addressed by a task force committee. Resolution of this issue would enhance both the professional image and improve the marketing/recruitment efforts of instructional technology graduate degree programs. The professional association should be accountable for providing a progressive direction for the instructional technology profession.

The Preamble to the Constitution of the United States provides valuable guidelines for the instructional technology profession. The author has rephrased the Preamble as:

> We, the instructional technology professional people, in order to form a more perfect graduate degree program, need to establish an annual survey, ensure a name, develop an effective organization, promote the profession, secure an identity for ourselves, do ordain and establish these recommendations for instructional techology.

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APPENDIX A

INSTRUCTIONAL TECHNOLOGY GRADUATE DEGREE PROGRAMS IN U.S. COLLEGES AND UNIVERSITIES: 1980 DATA COLLECTION FORM

UNIVERSITY OR COLLEGE NAME _____

SCHOOL, COLLEGE OR DIVISION NAME _____

PROGRAM OR DEPARTMENT NAME _____

PERSON COMPLETING QUESTIONNAIRE NAME _____

PROGRAM CHAIRPERSON/HEAD NAME _____

CITY_____ STATE _____ ZIP CODE _____ TELEPHONE ( ) _____
area code

CHECK (✓) THE TYPES OF DEGREES YOUR PROGRAM OFFERS

MASTERS	SIX-YEAR DEGREE	DOCTORATE
___ MS	___ CAS	___ Ed.D.
___ MA	___ CAGS	___ Ph.D.
___ M.Ed.	___ EDS	___ _____ other
___ MAT	___ _____ other	
_____ other		

ADMISSIONS

Please check (✓) all entry requirements that apply to each type of degree you offer. Where possible, provide the corresponding figures requested.

Master's Degree:

Required (✓)

_____ Graduate Record Exam (GRE) (minimum score: _____)
_____ Miller Analogies Test (MAT) (minimum score: _____)
_____ Special examination/institution's own (name: _____)
_____ Teaching experience (minimum years: _____)
_____ Minimum Undergraduate Grade Point Average(GPA)(___4pt. ___5pt.)
.. Transfer Credit Accepted (maximum hours: _____)
.. Other (please explain) _____

Six-Year Degree:

_____ Graduate Record Exam (GRE) (minimum score: _____)
_____ Miller Analogies Test (MAT) (minimum score: _____)
_____ Special examination/institution's own (name: _____)
_____ Teaching experience (minimum years: _____)
_____ Minimum Undergraduate Grade Point Average(GPA)(___4pt. ___5pt.)
_____ Minimum Graduate Grade Point Average (GPA) (___4pt. ___5pt.)
.. Transfer Credit Accepted (maximum hours: _____)
.. Other (please explain) _____

Doctorate Degree:

_____ Graduate Record Exam (GRE) (minimum score: _____)
_____ Miller Analogies Test (MAT) (minimum score: _____)
_____ Special examination/institution's own (name: _____)
_____ Teaching experience (minimum years: _____)
_____ Minimum Undergraduate Grade Point Average(GPA)(___4pt. ___5pt.)
_____ Minimum Graduate Grade Point Average (GPA)' (___4pt. ___5pt.)
.. Transfer Credit Accepted (maximum hours: _____)
.. Other (please explain) _____

PROGRAM REQUIREMENTS

Please check (✓) all requirements that apply to each type of degree you offer. Where possible, provide the corresponding informational details. (If you offer more than one type of degree for each level and the requirements are different, please indicate in the margin.)

Master's Degree:	Required (✓)
	Minimum total hours of credit required for degree (semester, quarter)
	Maximum time allocation for degree completion after admitted (time)
	Thesis/Dissertation/Scholarly Paper
	Comprehensive Exam
	Minimum Residency (time)
	Minimum Internship (time)
	.. Cost per credit hour (cost)

Six-Year Degree:

	Minimum total hours of credit required for degree (semester, quarter)
	Maximum time allocation for degree completion after admitted (time)
	Thesis/Dissertation/Scholarly Paper
	Comprehensive Exam
	Minimum Residency (time)
	Minimum Internship (time)
	.. Cost per credit hour (cost)

Doctorate Degree:

	Minimum total hours of credit required for degree (semester, quarter)
	Maximum time allocation for degree completion after admitted (time)
	Thesis/Dissertation/Scholarly Paper
	Comprehensive Exam
	Minimum Residency (time)
	Minimum Internship (time)
	.. Cost per credit hour (cost)

DEGREE EMPHASES

Please check (✓) or indicate the areas emphasized in your degree programs. Master's (M); Six-Year (S); and Doctorate (D)

M	S	D		M	S	D	
			management/administration				teaching
			materials production				evaluation
			utilization/application				instructional systems design
			theory				instructional development
			research				other
			selection				other
			training				other

ENROLLMENT DATA

Please provide the following information for each type of degree you offer for the 78-79 school year (Fall '78 - Summer '79).

Master's Degree:

Student Majors 78-79 (number _____)
Student Minors 78-79 (number _____)
Full-time students 78-79 (9 semester hours or more)(number _____)
Part-time students 78-79 (number _____)
Foreign students 78-79 (number _____)
Out-of-State students 78-79 (number _____)
Degrees granted 78-79 (number _____)

Six-Year Degree:

Student Majors 78-79 (number _____)
Student Minors 78-79 (number _____)
Full-time students 78-79 (9 semester hours or more)(number _____)
Part-time students 78-79 (number _____)
Foreign students 78-79 (number _____)
Out-of-State students 78-79 (number _____)
Degrees granted 78-79 (number _____)

Doctorate Degree:

Student Majors 78-79 (number _____)
Student Minors 78-79 (number _____)
Full-time students 78-79 (9 semester hours or more)(number _____)
Part-time students 78-79 (number _____)
Foreign students 78-79 (number _____)
Out-of-State students 78-79 (number _____)
Degrees granted 78-79 (number _____)

FACULTY MEMBERS

Please provide or insert a current list of your faculty members, indicating each person's name, degree (BA, MS, Spec., Ed.D., Ph.D., etc.), granting institution, rank (instructor, assistant prof., assoc. prof., prof., other) and status full-time (FT), part-time (PT). Use the following format if possible.

NAME	HIGHEST DEGREE	GRANTING INSTITUTION	FACULTY RANK	TEACHING STATUS (FT/PT)

PROGRAM FEATURES

Please check (✓) and provide the following information for your instructional technology program as a whole.

State certification. Title(s) of certification

_____, _____

_____, _____

_____, _____

Speciality areas (subjects or fields) in which student may major and number hours required.

Major	Hours	Major	Hours

Financial Assistance

___ Graduate assistants	___ number	$ _____ per school year
___ Teaching assistants	___ number	$ _____ per school year
___ Research assistants	___ number	$ _____ per school year
___ Fellowships	___ number	$ _____ per school year
___ Scholarships	___ number	$ _____ per school year
___ Tuition waiver	___ number	$ _____ per school year
___ Other _____	___ number	$ _____ per school year

Facilities and Equipment. Please check (✓) once each of the facilities which are directly under the program's control and check twice (✓✓) facilities available for program's use elsewhere on campus.

_____ TV studio
_____ Audio lab
_____ Graphics lab
_____ Repair lab
_____ Research lab
_____ Other _____

_____ Darkroom
_____ Equipment operation
_____ Production lab
_____ Computer (CAI) lab
_____ Audiovisual tutorial labs
_____ Other _____

CURRICULUM

Please provide or insert a list of the titles of the instructional technology courses that can be taken for graduate credit within your program.

Course Title and Credit Hours

Course Title and Credit Hours

(Please insert list)

Return to:
Ronald Short
Farmland Industries, Inc.
P.O. Box 7305, Dept. 23
Kansas City, Missouri 64116

APPENDIX B
Graduate Programs Instructional Technology (1978-1979)*

Dr. C. Dan Wright
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M, 6

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University Station
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M, 6

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School of Instructional Media
Jacksonville State University
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M, 6

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M

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M

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Graduate School of Libr. Serv.
University of Alabama
University, AL 35486
M, 6

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Tempe, AZ 85281
M, D

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College of Educ., Educ. Media
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M, 6

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Dept. of Educ. Media/Lib.Sci.
Box H
Conway, AR 72032
M

Dr. Donald Bumpass
Instructional Resources
College of Education
University of Arkansas
Fayetteville, AR 72701
M, 6

Dr. Dennis W. Fleniken, Dir.
Educational Media
Arkansas Tech. Univ.
Russellville, AR 72801
M

*M = Master's Degree

6 = Six-Year Degree

D = Doctorate Degree

APPENDIX B (Continued)
Graduate Programs Instructional Technology (1978-1979)

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M

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Los Angeles, CA 90731
M

Dr. Merl Wittrock
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M, D

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M, 6, D

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M

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San Jose, CA 95192
M

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Univ. of Colorado--Boulder
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College of Education
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M, 6, D

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Librarianship & Infor. Mgt.
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M, 6

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Univ. of Northern Colorado
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M, 6

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M

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M, 6

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M

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501 Crescent Street
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APPENDIX B (Continued)
Graduate Programs Instructional Technology (1978-1979)

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APPENDIX B (Continued)
Graduate Programs Instructional Technology (1978-1979)

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Southern Illinois University
Edwardsville, IL 62026
M, 6, D

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National College of Education
2840 Sheridan Road
Evanston, IL 60201
M, 6

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Western Illinois University
900 W. Adams Street
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M

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Information Sciences Dept.
Illinois State University
Normal, IL 61761
M

Dr. Sam Goldenstein
Governors State University
Communication Science
Comm. Human Services
Park Forest South, IL 60466
M

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Bloomington, IN 47405
M, 6, D

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Hammond, IN 46323
M

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46th at Sunset Avenue
Indianapolis, IN 46208
M

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Education Media Program
Indiana State University
Terre Haute, IN 47809
M

Dr. George P. Salen
Instructional Research
and Development
Purdue University
West Lafayette, IN 47907
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Iowa State University
Ames, IA 50010
M, D

Dr. Robert R. Hardman
Media Instruction
University of Northern
Iowa
Cedar Falls, IA 50613
M

Dr. Lowell Schoer
Div. of Instructional
Design and Technology
University of Iowa
Iowa City, IA 52240
M, 6, D

Dr. Philip J. Brody
University of Kansas
School of Education
Bailey Hall
Lawrence, KS 66045
M, 6, D

Dr. Fred A. Teague
Holton Hall
Kansas State University
College of Education
Manhattan, KS 66506
M, D

APPENDIX B (Continued)
Graduate Programs Instructional Technology (1978-1979)

Dr. Vera Guthrie
Western Kentucky University
Dept. of Library Science
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Bowling Green, KY 42101
M, 6

Dr. William Peters
University of Kentucky
Curriculum and Instruction
Lexington, KY 40506
M, 6, D

Dr. Ronald Bryson
Library Science
Spalding College
851 S. 4th
Louisville, KY 40203
M

Dr. T. Michael Smith
University of Louisville
School of Education
Louisville, KY 40208
M

Dr. Charlie W. Roberts
Department of Mass Comm.
Louisiana State University
Baton Rouge, LA 70803
M, 6, D

Dr. Henry Wiggins
Dept. of Instruc. Media
College of Education
Southern Univ. & A & M Coll.
Baton Rouge, LA 70813
M

Dr. Elmer Wagner
Dept. of Educ. Tech.
Mc Neese State University
Lake Charles, LA 70609
M, 6

Dr. Bill L. Perry
College of Educ. Sup., Found.
Dept. Admin and Sup.
Northeast Louisiana Univ.
Monroe, LA 71209
M, 6

Dr. Thomas Hennigan
Secondary Education
N.W. State University of
Louisiana
Natchitoches, LA 71457
M

Dr. William R. Johnson
Univ. of MD-Baltimore Co.
Instructional Systems Dev.
5401 Wilkens Avenue
Catonsville, MD 21228
M

Dr. John Splaine
Dept. of Educ. Comm.
College of Education
University of Maryland
College Park, MD 20742
M, 6, D

Dr. Gary Rosecrans, Chairperson
Instruct. Tech.
Towson State University
8000 York Road
Towson, MD 21204
M

Dr. Margaret Denman
Media/Lib. Science
Western Maryland College
Westminister, MD 21157
M

Reginald G. Damerell
Center for Media Technology
School of Education
University of Massachusetts
Amherst, MA 01003
M, 6, D

Dr. Ronald A. Grinnell
Instructional Media
Boston State College
625 Huntington Avenue
Boston, MA 02115
M, 6

Dr. Gaylen B. Kelley, Chmn.
Dept. Ed. Media & Tech.
Boston University
755 Commonwealth Avenue
Boston, MA 02215
M, 6, D

APPENDIX B (Continued)
Graduate Programs Instructional Technology (1978-1979)

Dr. Alan Lander, Dir.
Media & Librarianship
Bridgewater State College
Bridgewater, MA 02324
M

Dr. Fred John Pula
Dept. of Educ.
Media Specialist Program
Boston College
Chestnut Hill, MA 02167
M, 6

Dr. Lee De Nike
Dept. Comm./Media
Fitchburg State College
160 Pearl Street
Fitchburg, MA 01420
M

Dr. George Torrey
School of Administration
Salem State College
Salem, MA 01970
M

Dr. Paul Davis
Dept. Media
Worchester State College
486 Chandler
Worchester, MA 01602
M

Dr. Warren G. Palmer
School of Education
Curr. & Instruction
University of Michigan
Ann Arbor, MI 48109
M, 6, D

Dr. John Childs, Coord.
Instructional Tech. Programs
College of Education
Wayne State University
Detroit, MI 48202
M, 6, D

Dr. Castelle Gentry
Instruc. Dev. and Technology
College of Education
Michigan State University
E. Lansing, MI 48824
M, 6, D

Dr. Inja Hong
Program of Audiovisual Media
Western Michigan Univ.
College of Educ.
Kalamazoo, MI 49007
M, 6, D

Dr. Robert Mills, Chmn.
Library Media
Central Michigan University
Mount Pleasant, MI 48859
M

Dr. Frank Birmingham
Lib. Media Education
Mankato State University
Mankato, MN 56017
M, 6

Dr. Robert Tennyson
Curr. & Instructional Sys.
College of Education
University of Minnesota
Minneapolis, MN 55455
M, D

John Berling, Prof.
Dept. of Library and
Audiovisual Education
Saint Cloud State Univ.
Saint Cloud, MN 56301
M, 6

Margaret Gunn
Dept. Media and Library
Science
Delta State University
Cleveland, MS 38732
M

Dr. Lee Jones
University of Southern Miss.
Dept. of Research and
Foundation
Hattiesburg, MS 39401
M, 6, D

Dr. Cozetta W. Buckley
Dept. Lib. Science
Jackson State Univ.
P.O. Box 17444
Jackson, MS 39217
M

APPENDIX B (Continued)
Graduate Programs Instructional Technology (1978-1979)

Dr. Burl Hunt
Director, Educ. Media
The University of
Mississippi
University, MS 38677
M, 6

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Curriculum and Instruct.
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Columbia, MO 65211
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School of Educ. Ed. Tech.
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Saint Louis, MO 63121
M

Paul Steinmann
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Webster College
470 E. Lockwood
Saint Louis, MO 63119
M

Dr. Bette L. Cooke
Dept. of Libr. Sci. and
Instructional Tech.
Central Missouri State Univ.
Warrensburg, MO 64093
M, 6

Geneva T. Van Horne
University of Montana
Dept. of Education
Missoula, MT 59812
M

Dr. Louis C. Ninegar
Educ. Administration
Kearney State College
Kearney, NE 68847
M, 6

Dr. Dale K. Hayes
Dept. of Educational
Administration
University of Nebraska
Lincoln, NE 68588
M, 6, D

Dr. E. L. Haselwood
Dept. of Library Science
Univ. of Nebr. at Omaha
P.O. Box 688
Omaha, NE 68182
M

Dr. Charles Bartl
Educ. Foundations and
Media
University of Nevada
Reno, NV 89557
M, 6

Charles Bolts
Dept. Lib. Educ.
Glassboro State College
Glassboro, NJ 08028
M

Dr. Lawrence Rhodes
Pro. Studies and Educ.
Jersey City State College
2039 Kennedy Boulevard
Jersey City, NJ 07305
M

Dr. Rosemary Skeele
School of Education
Div. Educ. Media
Seton Hall University
South Orange, NJ 07079
M, 6

Dr. Richard Warner
Media Comm. Science
Trenton State College
Trenton, NJ 08625
M

Dr. Grosvenor Rust
Technology In Educ.
Educational Leadership
Montclair State College
Upper Montclair, NJ 07043
M

Dr. Ernest Siegel
William Patterson College
Educ. Media
300 Pompton Road
Wayne, NJ 07470
M

APPENDIX B (Continued)
Graduate Programs Instructional Technology (1978-1979)

Dr. Albert W. Vogel
Dept. of Educational Found.
College of Education
University of New Mexico
Albuquerque, NM 87131
M, 6, D

Dr. Lucille Baird
Instructional Resources
Eastern New Mexico Univ.
Portales, NM 88130
M

Dr. Clarence O. Bergeson
School Libr. & Inf. Sci.
State Univ. of NY--Albany
1400 Washington Avenue
Albany, NY 12222
M, 6

Dr. Taher A. Razik
Dept. of Curriculum Dev.
and Instructional Media
State Univ. of NY--Buffalo
Amherst, NY 14260
M, D

Dr. Ronald Nicoson
School of Communications
Ithaca College
Ithaca, NY 14850
M

Dr. Robert E. Holloway
Curr. & Teaching Inst. Tech.
Teachers Coll.-Columbia Univ.
525 W. 120th Street
New York, NY 10027
M, 6, D

Peter Haratonik
New School for Social Resh.
Dept. of Media Studies
66 5th Avenue
New York, NY 10011
M

Dr. Francine Shuchat-Shaw
New York University
Communications in Educ.
100 Washington Square, E.
New York, NY 10003
M, 6, D

Dr. Adrienne O'Brien
Communication Arts
NY Institute of Technology
Old Westbury, NY 11568
M, D

Dr. Richard Hubbard
A.V. Comm. and Tech.
State Univ. College--Oswego
Langan Hall
Oswego, NY 13126
M

Dr. Norman Licht
School Profess. Studies
New York State Univ.
College--Potsdam
Potsdam, NY 13676
M

Dr. Clint J. Wallington
Dept. of Inst. Tech.
Rochester Inst. of Tech.
One Lomb Memorial Drive
Rochester, NY 14623
M

Dr. Philip Doughty
Instructional Tech.
Syracuse University
106 Huntington Hale
Syracuse, NY 13210
M, 6, D

Dr. Alice P. Naylor, Chmn.
Dept. of Educ. Media
Graduate School
Appalachian State Univ.
Boone, NC 28608
M, 6

Dr. Ralph E. Wileman
The School of Educ.Educ.Media
The Univ. of NC--Chapel Hill
Peabody Hall
Chapel Hill, NC 27514
M

Dr. Paul S. Flynn
Educational Media
Western Carolina Univ.
Cullowhee, NC 28723
M

APPENDIX B (Continued)
Graduate Programs Instructional Technology (1978-1979)

Dr. Marvin E. Duncan
Educational Technology
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North Carolina Central Univ.
Durham, NC 27707
M

Dr. Ralph L. Wooden
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N.C. Agri. & Tech. State Univ.
Greensboro, NC 27411
M

Dr. James Batten
Dept. of Secondary Educ.
East Carolina University
Greenville, NC 27834
M

Dr. Seldon D. Strother
Educational Media Program
College of Education
Ohio University
Athens, OH 45701
M

Dr. Keith Doellinger, Chmn.
Dept. Libr. & Educ. Media
Bowling Green State Univ.
Bowling Green, OH 43403
M

Dr. John P. Pohlman, Chmn.
Department of Education
Xavier University
Cincinnati, OH 45207
M

Dr. John Belland
Educ. Comm.
Ohio State University
Columbus, OH 43210
M, D

Dr. Bonnie Mathies, Pgm. Coord.
Div. Library and Comm. Sci.
Wright State University
Colonel Glenn Highway
Dayton, OH 45435
M

Dr. Donald C. Beckwith
Educational Media Program
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Kent, OH 44240
M, 6, D

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Dr. Howard H. Farris
College of Education
Instructional Media
Central State University
Edmond, OK 73034
M

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Dept. of Educ. Tech.
College of Education
University of Oklahoma
Norman, OK 73019
M, D

Dr. Bruce Petty
Instructional Media
Oklahoma State Univ.
Stillwater, OK 74078
M, D

Dr. Polly Clarke
Library Media
Northeastern State Univ.
Tahlequah, OK 74464
M

Dr. John A. Ludrick
College of Education
Instructional Media
S.W. Oklahoma State Univ.
Weatherford, OK 73096
M

APPENDIX B (Continued)
Graduate Programs Instructional Technology (1978-1979)

Dr. Ruth Stiehl
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Oregon State University
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M

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University of Oregon
Instructional Tech.
Eugene, OR 97403
M, D

Dr. Richard Forcier
Educational Media
Oregon College of Education
Monmouth, OR 97361
M

Dr. Joyce Petrie
Prgm. Coord, Ed. Media/School Libshp. Prgm.
Portland State Univ.
Portland, OR 97207
M

Dr. James H. Cole
Clarion State College
School of Communication
Clarion, PA 16214
M

Dr. Donald Rudy
College of Education
Instructional Media
Edinboro State College
Edinboro, PA 16444
M

Dr. Ronald Juliette
Communications Media
Indiana Univ. of PA
Indiana, PA 15705
M

Dr. Guy Garrison, Dean
School of Libr. and Information Sci.
Drexel University
Philadephia, PA 19104
M

Dr. Donald Fork
Dept. of Educ. Media
Temple University
Philadelphia, PA 19122
M, 6, D

Dr. Mary Spiro
Dept. of Ed. Comm. & Tech.
School of Education
University of Pittsburgh
Pittsburgh, PA 15260
M, 6, D

Dr. Michael Singletary
Instr. Media Specialist
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Shippensburg, PA 17257
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Dr. Paul W. Welliver
Div. of Curriculum & Instr.
College of Education
Pennsylvania State Univ.
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M, D

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Instructional Media Ed.
West Chester State College
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M, 6

Dr. A. P. Mc Laurin
Media Arts Department
Univ. of South Carolina
Columbia, SC 29208
M

Dr. George Robinson
Winthrop College
School of Education
Library Science
Rockhill, SC 29733
M

APPENDIX B (Continued)
Graduate Programs Instructional Technology (1978-1979)

Dr. Wayne Bruning
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M

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Johnson City, TN 37601
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M, 6, D

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Dr. Robert Titus, Prof.
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Dr. Bettye Johnson
Texas Tech University
Curriculum & Instruction
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M

Dr. Marion Henry
Educational Tech.
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Prairie View, TX 77445
M

Dr. Don Smellie, Dir.
Dept. of Inst. Media
College of Education
Utah State University
Logan, UT 34322
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Dr. Grant Van Harrison
Dept. of Instruct. Science
Brigham Young University
Provo, UT 84602
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Dr. Larry Weber
Virginia Polytechnic Inst.
and State University
Dept. of Curr. & Instruc.
Blacksburg, VA 24060
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APPENDIX B (Continued)
Graduate Programs Instructional Technology (1978-1979)

Dr. John Bunch
Audiovisual Educ.
University of Virginia
Charlottesville, VA 22903
M, 6, D

Dr. John Green
Education Media
Central Washington Univ.
Ellensburg, WA 98926
M

Dr. Raymond C. Ramquist
Library Sci. and Educ.
Media
James Madison University
Harrisonburg, VA 22801
M

Dr. Dale Andersen
College of Educ.
Washington State Univ.
Pullman, WA 99163
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Dr. Charles Smith, Dir.
Learning Resources
Educ. Leadership and Servs.
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M

Dr. Peter Smith
School of Education
Learning Resources Educ.
Seattle Pacific Univ.
Seattle, WA 98119
M

Dr. Harry Johnson
Dept. Lib. Sci. &
Educ. Media
Virginia State University
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M

Dr. G. M. Torkelson, Prof.
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Educ. Communications
University of Washington
Seattle, WA 98195
M, D

Dr. Robert Lockwood
Instructional Support Serv.
Radford College
Radford, VA 24142
M

Dr. Walter C. Felty, Dir.
Educ. Media Program
Marshall Univ.
Huntington, WV 25701
M

Dr. Arthur Schwieder
Virginia Commonwealth Univ.
Sch.of Educ.,Educ.Media Conc.
Oliver Hall, 1001 W. Main
Richmond, VA 23284
M

Dr. Paul W. Devore
Technology Education
West Virginia University
Morgantown, WV 26506
M, D

Dr. Flora Fennimore
School Administration
Admin. Learning Res.
Western Washington Univ.
Bellingham, WA 98225
M

Dr. Clyde L. Greve, Chmn.
Educational Media Dept.
University of WI--La Crosse
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M

Dr. Thomas Keith Midgley
Instr. Comm.
E. Washington University
Cheney, WA 99004
M

Dr. Ann D. Becker
Instructional Media
University of Wisconsin
Madison, WI 53706
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APPENDIX B (Continued)
Graduate Programs Instructional Technology (1978-1979)

Dr. James Daines
Media Tech. Graduate
Program
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M

Will Roy
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M

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Educ. and Human Services
Curr. and Instruction
University of WI-Oshkosh
Oshkosh, WI 54901
M

Dr. Clifford C. Fortin
Dept. of Educ.
Libr. Science/Media Educ.
Univ. of WI--River Falls
River Falls, WI 54022
M

Dr. Roy Van Dreser
University of Wisconsin--
Stevens Point
Instructional Resources
Stevens Point, WI 54481
M

Dr. Ray Clark, Dir.
Educational Media Program
College of Education
University of Wyoming
Laramie, WY 82071
M, 6, D

APPENDIX C

Number of Instructional Technology Programs Identified in Each State

State	Academic Year			
	1954-55 N = 50	1968-69 N = 67	1977-78 N = 91	1978-79 N = 193
Alabama	0	1	1	7
Alaska	0	0	0	0
Arizona	2	1	1	2
Arkansas	0	0	4	3
California	4	6	6	9
Colorado	3	2	2	3
Connecticut	2	1	5	5
Delaware	0	0	0	0
Florida	1	1	1	4
Georgia	1	1	1	4
Hawaii	0	1	1	1
Idaho	0	0	0	0
Illinois	0	5	5	10
Indiana	2	3	3	5
Iowa	1	3	3	3
Kansas	0	1	1	2
Kentucky	1	1	0	4
Louisiana	0	1	1	5
Maine	0	0	0	0
Maryland	0	1	2	4
Massachusetts	1	2	2	8
Michigan	3	2	6	5
Minnesota	1	2	2	3
Mississippi	0	0	0	4
Missouri	0	1	4	4
Montana	0	0	0	1
Nebraska	1	1	1	3
Nevada	0	0	0	1
New Hampshire	0	0	0	0
New Jersey	0	0	0	6
New Mexico	0	0	0	2
New York	6	6	7	11
North Carolina	2	1	2	6
North Dakota	0	1	1	0
Ohio	1	2	6	8
Oklahoma	2	1	1	5
Oregon	1	0	3	4
Pennsylvania	2	5	5	9
Rhode Island	0	0	0	1
South Carolina	0	0	0	2
South Dakota	0	0	0	1

APPENDIX C (continued)

State	Academic Year			
	1954-55 N = 50	1968-69 N = 67	1977-78 N = 91	1978-79 N = 193
Tennessee	0	1	1	4
Texas	3	3	3	8
Utah	1	3	3	2
Vermont	0	0	0	0
Virgina	2	2	2	7
Washington	3	1	1	6
West Virgina	1	0	1	2
Wisconsin	2	3	3	7
Wyoming	1	0	0	1
Washington, D.C.	0	0	0	2
Puerto Rico	0	1	0	0
	50	67	91	194

APPENDIX D

States Comprising Each Geographic Region

Middle States/New England

Connecticut, Delaware, District of Columbia, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont

North Central

Arizona, Arkansas, Colorado, Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, New Mexico, North Dakota, Ohio, Oklahoma, South Dakota, West Virginia, Wisconsin, Wyoming

Southern

Alabama, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas, Virginia

West/Northwest

Alaska, California, Hawaii, Idaho, Montana, Nevada, Oregon, Utah, Washington

APPENDIX E

School, College, or Division Name

Name N = 34	Number of Institutions Using Name/ Academic Year			
	1954-55 N = 50	1968-69 N = 67	1977-78 N = 61	1978-79 N = 193
Administration, Supervision, Curriculum	0	0	2	0
Applied Arts and Health	0	0	0	1
Arts and Sciences	0	0	0	3
Behaviorial Sciences	0	0	0	1
Biomedial Studies	0	0	0	1
Communication	0	1	1	4
Curriculum and Instruction	0	0	1	1
Curriculum and Teaching	1	1	0	0
Education	42	60	47	157
Educational Media	0	0	1	0
Educational Psychology	0	0	1	0
Educational Studies	0	0	1	0
Educational Technology and Instructional Program	0	1	0	0
Extension Division	1	0	0	0
Graduate School Program	4	1	2	1
Human Learning and Development	0	0	0	2
Humanities, Social Science, Education	0	1	1	0
Institute College	0	0	1	1
Instructional Materials Center	1	0	0	0
Instructional Media and Technology	0	0	0	1
Learning Activities and Resource Center	0	0	0	1
Learning Resources	0	0	0	1
Library and Communicaton Science	0	0	0	1
Library Science and Instructional Technology	0	0	0	1
Library Media	0	0	0	1
Library School	1	0	0	0
Library Science	0	0	0	4
Librarianship and Information Management	0	0	0	2
Media Arts	0	0	1	1
Media Communications	0	0	0	1
Media Instruction	0	0	0	1
Media Studies	0	0	0	1
Professional Studies	0	0	0	3
Teachers College	0	1	2	2

APPENDIX F

Listing of Department Names

Department Name N = 74	No. of Institutions Using Name/ Academic Year			
	1954-55 N = 50	1968-69 N = 66	1977-78 N = 61	1978-79 N = 193
Adult Education and Instructional Services	0	0	0	1
Audiovisual Communications and Technology	0	0	0	1
Audiovisual or Audiovisual Education	16	5	0	0
Audiovisual or Instructional Materials	0	2	0	0
Biomedical Communications	0	0	0	1
Center for Information and Communication Studies	0	0	0	1
Communications	0	1	1	6
Communications/Media	0	0	1	3
Communications in Education	1	0	0	1
Curriculum and Instruction	1	8	1	11
Curriculum and Instructional Media	0	0	1	1
Curriculum and Instructional Systems	0	0	0	1
Curriculum and Media	0	0	0	1
Curriculum Development and Instructional Media	0	1	1	1
Curriculum-Educational Technology	0	0	1	0
Curriculum Instruction and Media	0	0	0	1
Education	8	2	0	2
Educational Communications/Media	0	0	1	4
Educational Library/Media Program	0	0	1	1
Educational or School Administration	0	5	1	5
Educational and Professional Development	0	0	1	0
Educational Communications and Technology	0	0	1	2
Educational Media	0	0	9	24
Educational or Instructional Media	0	14	4	11
Educational Media and Technology	0	0	2	6
Educational Foundations	0	0	0	1
Educational Foundations and Media	0	0	0	1
Educational Media and Instructional Design	0	0	0	1
Educational Psychology	0	2	0	0
Educational Technology	0	0	2	11
Educational Research	0	1	0	0
Educational Systems Development	0	0	0	1
Educational Media Library Service	0	0	0	1
Educational Systems and Learning Resources	0	0	1	0
Educational Technology and Librarianship	0	0	1	2
Instructional Media	0	0	4	2

APPENDIX F (continued)

Department Name N = 74	No. of Institutions Using Name/ Academic Year			
	1954-55 N = 50	1968-69 N = 66	1977-78 N = 61	1978-79 N = 193
Instructional or Educational Communications	0	5	2	4
Instructional Communications	0	0	1	1
Instructional Communications and Technology	0	0	0	2
Instructional Design, Development, Evaluation	0	0	1	1
Instructional Design and Technology/Media	0	0	1	3
Instructional Development/Research and Technology	0	1	1	1
Instructional Media and Technology	0	0	0	5
Instructional Media Education	0	0	1	0
Instructional Resources	1	0	1	3
Instructional Science	1	0	1	1
Instructional Systems	0	2	1	3
Instructional or Media Technology	0	6	7	12
Library and Audiovisual Education	1	3	1	2
Library and Communications Science	0	0	1	0
Library Science and Educational Media	0	0	2	3
Library/Media	0	0	1	11
Library Science and Instructional Technology	0	0	1	2
Library Science	0	1	0	3
Library/Instructional Media	0	0	0	3
Library Media and Information Studies	0	0	0	2
Library Science and Communication Media	0	0	0	1
Learning Resources	0	0	0	3
Learning Resources and Mass Media	0	1	0	0
Media	0	0	0	6
Media/Arts	0	0	1	1
Media--Instruction Design	0	0	1	0
Media Services	0	0	1	1
Media Technology	0	0	1	2
Media Communications	0	0	0	2
Media/Library and Instructional Systems	0	0	0	1
Media and Librarianship	0	0	0	1
Product Research Training	0	1	0	0
Program Development and Evaluation	0	0	0	1
Reading and Library Science	0	0	0	1
Science and Technology of Instruction, Learning, and Evaluation	0	0	0	1
Secondary Education	0	5	0	3
Specialties Area	0	0	0	1
Technology Education	0	0	0	1

APPENDIX G

Titles of State Certification for Instructional Technology Programs
(1978-79)

Title of State Certification N = 54	Number of Institutions Offering Title
Audiovisual Coordinator	3
Audiovisual Director	5
Audiovisual Media Coordinator	2
Audiovisual Services	4
Audiovisual Media Specialist	2
Audiovisual Specialist	3
Educational Administrative Specialist--Instructional Services	6
Educational Media	1
Educational Media, Associate	1
Educational Media, Elementary	6
Educational Media, Generalist	2
Educational Media, K-12	6
Educational Media, Secondary	6
Educational Media, Specialist	2
Educational Media, Specialist Associate	2
Educational Media Endorsement, Basic	2
Educational Media Endorsement, Standard	3
Educational Media Specialist	10
Elementary School Media	1
Instructional Media Specialist	7
Instructional Media Specialist, A	2
Instructional Media Specialist, AA	2
Instructional Media Technologist	4
Learning Resources Director	4
Learning Resources Specialist	4
Library Media	11
Library Media Specialist	12
Library Media Specialist Associate	1
Library Media Specialist Professional	1
Library Media Specialist Teacher	1
Media Communication Specialist	1
Media Coordinator	2
Media Coordinator Associate	1
Media Director	1
Media Endorsement Basic	2
Media Endorsement Professional	2
Media Generalist	3
Media Professional	7
Media Specialist	38
Media Specialist Associate	1
Media Specialist IV	4

APPENDIX G (continued)

Title of State Certification N = 54	Number of Institutions Offering Title
Media Specialist V	4
Media Specialist VI	2
Media Specialist VII	2
Media Specialist Administration	3
Media Specialist K-8	3
Media Specialist K-12	3
Media Specialist 7-12	3
Media Supervisor	9
Radio-Television	1
School Library/Librarianship	7
School Media Services	1
Teacher Certificate, Media Endorsement Added	2

APPENDIX H

Specialty Areas (Subjects or Fields) for
Instructional Technology Majors (1978-79)

Title of Specialty N = 54	Number of Institutions Offering Specialty
Audiovisual Media	4
Biomedical Communications	1
Cinematography	1
Communications	4
Computer Assisted/Based Instruction	3
Computer Generated Graphics	1
Diffusion and Adoption of Innovations	1
Educational Communications	1
Educational Curriculum and Instruction	1
Educational Media	11
Educational Media and Technology	3
Educational Technology	11
Evaluation	4
Facilities Design	1
Film Study	3
Film Writing	1
Graphics, Print Design	2
Health Science and Education	3
Higher Education Services	3
Individualized Instruction	1
Information Library Media	1
Instructional Communications	1
Instructional/Educational Psychology	3
Instructional/Media Design	10
Instructional Design and Technology	2
Instructional Development	10
Instructional Media	7
Instructional Processes	1
Instructional Systems Design	6
Instructional Technology	2
Learning Resources	3
Library/School Services	11
Library Science	11
Materials	1
Media	3
Media Arts	1
Media/Educational Administration/Management	16
Media Generalist	6
Media/Library/Instructional Specialist	6
Media Librarianship	1
Media Production	13
Media Utilization	3
Media Writing	1

APPENDIX H (continued)

Title of Specialty N = 54	Number of Institutions Offering Specialty
Performance Systems Engineer	1
Photography	3
Public Relations	1
Radio and Television Education	1
Research	4
Systems Management	1
Teaching	3
Television	7
Training	4
Training and Development	3
Visual Studies	1